EUROPEAN CONGRESS OF RADIOLOGY



BUILDING BRIDGES
JULY 13-17 | VIENNA

Preliminary programme printed on March 6, 2023 subject to change without previous notice

## - Communication with patients

**Date:** January 1, 1970 | 01:00 - 01:00 CET

#### **Moderators:**

Erik Briers; Brussels / Belgium

Cheryl Cruwys; Haute Vienne / France



## - Highlights from the Mobile Film Crew Day 1

**Date:** July 13, 2022 | 02:15 - 02:30 CEST

**Moderator:** 

Ben Giese; Chicago / United States



## RC 116 - Artificial intelligence in oncologic imaging: ready for prime time?

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Multidisciplinary, Oncologic Imaging, Professional Issues

ETC Level: LEVEL III

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Emanuele Neri; Pisa / Italy

Chairperson's introduction (5 min)

Emanuele Neri; Pisa / Italy

Artificial intelligence frontiers in oncologic screening (10 min)

Bram Van Ginneken; Nijmegen / Netherlands

Artificial intelligence tumour characterisation: challenges and future prospective (10 min)

Luis Marti-Bonmati; Valencia / Spain

Radiomics and data integration (10 min)

Mireia CrispinOrtuzar; Cambridge / United Kingdom

Imaging biobanks for artificial intelligence improvement (10 min)

Angel Alberich-Bayarri; Valencia / Spain

Panel discussion: Can artificial intelligence improve the oncologic multidisciplinary team? (15 min)



## RPS 112 - Radiological diagnosis and follow-up of congenital disorders in children

Categories: Cardiac, Chest, Genitourinary, Paediatric Imaging, Vascular

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Michele Galluzzo; Rome / Italy

Congenital lung abnormalities on magnetic resonance imaging: the CLAM study (8 min)

Pierluigi Ciet; Rotterdam / Netherlands

Structure and function at school age in preterm born children with and without bronchopulmonary dysplasia on lung-MRI (8 min)

Pierluigi Ciet; Rotterdam / Netherlands

MRI for longitudinal disease and therapy response monitoring of chronic rhinosinusitis in cystic fibrosis (8 min)

Felix Wuennemann; Heidelberg / Germany

Three-dimensional visualisation of large vessel anomalies in foetuses using multivein super-resolution MR technique (8 min)

Florian Prayer; Vienna / Austria

Image quality and radiation dose evaluation of paediatric ECG-triggered cardiovascular computed tomography in congenital heart diseases (8 min)

Marianna Gulizia; Lausanne / Switzerland

Single phase split bolus CT urography in congenital anomalies of kidney and urinary tract in children: is it sufficient for diagnosis? (8 min)

Ankit Arora; Jodhpur / India



#### **RPS 111 - Functional MRI in various diseases**

Categories: Imaging Methods, Neuro

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Alexandra Borges; Lisbon / Portugal

Abnormal functional stability in patients with minimal hepatic encephalopathy (8 min)

LiMin Cai; Fuzhou / China

Functional disorder in lifelong premature ejaculation evaluated by sparse representation-based brain connectivity network (8 min)

Jiaming Lu; Nanjing / China

Dynamic alterations of functional connectivity density in amyotrophic lateral sclerosis: a resting-state functional magnetic resonance imaging study (8 min)

Jia-Hui Lin; Fuzhou / China

What changes occur in the brain of veterans? An MRI and 1HMRS study (8 min)

Andrzej Urbanik; Kraków / Poland

Multimodal advanced MRI imaging of nerve roots in lumbar radiculopathy using DWI, DTI and T2 mapping sequences: clinical and neurophysiological correlations (8 min)

Federico Bruno; L'Aquila / Italy

Pilot study on longitudinal evaluation of brain plasticity in low-grade gliomas: graph theory unravels dynamics of language reorganisation on post-surgical fMRI (8 min)

Luca Pasquini; Rome / Italy

Restoration of brain networking following carotid endarterectomy (8 min)

Michele Porcu; Cagliari / Italy





#### RPS 107 - Solid or cystic, benign or malignant renal lesions: how to make the right diagnosis?

Categories: Contrast Media, Evidence-Based Imaging, Genitourinary, Oncologic Imaging, Ultrasound

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Patrick Asbach; Berlin / Germany

CT imaging findings of renal epithelioid lipid-poor angiomyolipoma (8 min)

Xiaoping Yi; Changsha / China

Comparison of the diagnostic performance of the Bosniak classification with its 2019 update and the Renal cyst index

(8 min)

Eva Rainer; Wien / Austria

Contrast-Enhanced Ultrasound (CEUS) in the evaluation of renal masses: results from a prospective single-centre study

(8 min)

Milvia Martino; ROMA / Italy

Diagnostic value of combined use of CT and MRI for the Bosniak classification 2019: impact of reader specialty (8 min)

Yuki Arita; ShinjuKu-Ku / Japan

Multi-parametric MRI to detect early treatment response of renal cell carcinoma to sunitinib (8 min)

Stephan Ursprung; Tübingen / Germany

Cystic renal cell carcinomas: assessment of Bosniak classification with MRI-based Bosniak classification, version 2019

(8 min)

Huanhuan Kang; Beijing / China

Enhancement features of cystic renal masses with contrast-enhanced ultrasound (8 min)

Eugenio Gioulis; Conegliano / Italy





## RPS 101 - Abdominal imaging pearls based on solid research

Categories: Abdominal Viscera, Emergency Imaging, Forensic Imaging, Imaging Methods, Research

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderator:**

Jennifer Margaret Ni Mhuircheartaigh; Adare / Ireland

Simple diagnosis of relevant strictures in primary sclerosing cholangitis patients using gadoxetic acid-enhanced MRI (8 min)

min)

Sarah Pötter-Lang; Vienna / Austria

The adrenal-to-spleen ratio as a short-term predictor of mortality in intensive care patients: a feasibility study (8 min) Dieter Fedders; Chemnitz / Germany

Diagnostic impact of AAST injury scale in abdominal CT scan for the assessment of traumatic liver lesions (8 min) Cesare Maino; Monza / Italy

How to distinguish ITPN with associated invasive carcinoma from conventional ductal adenocarcinomas of the pancreas (8 min)

Ekaterina Khristenko; Heidelberg / Germany

Noninvasive imaging evaluation of very early recurrence after resection for intrahepatic cholangiocarcinoma (8 min) Feng Che; Chengdu / China

Post-mortem CT in fatal gunshot wounds: every bit as good as autopsy (8 min)

Monica Palermo; Catania / Italy

Increasing the specificity of computed tomography angiography for the diagnosis of hepatic artery occlusion after liver transplantation in suspected patients with Doppler US abnormalities (8 min)

Jin Sil Kim; Seoul / Korea, Republic of



## **RPS 104 - Pulmonary infections**

Categories: Artificial Intelligence & Machine Learning, Chest, Imaging Methods

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Maja Pirnat; Maribor / Slovenia

Automated lung vessel segmentation reveals blood vessel volume redistribution in viral pneumonia (8 min)

Julien Poletti; Geneva / Switzerland

Radiographic findings of non-tuberculous mycobacterial lung disease using a modified CT scoring system (8 min)

Simon S. Martin; Frankfurt / Germany

A CT-based radiomics nomogram for identifying patients with community-acquired pneumonia who require intensive respiratory or vasopressor support (8 min)

Jianjun Zheng; Ningbo / China

Investigation of childhood pneumonia with chest ultrasound: a comparison between X-ray and ultrasound (8 min)

Ayşenur Buz; Bolu / Turkey

Indication catalogue-based ordering reduces chest x-ray volumes in intensive care units without negative effects on patient outcomes: results from the REDUCE study (8 min)

Daniel Puhr-Westerheide; Munich / Germany

Reader variability in COVID-19 chest X-ray severity assessment: the need for multi-reader datasets for artificial intelligence development (8 min)

Giovanni Tessarin; Mogliano veneto / Italy

Comparative analysis of clinical imaging features of multidrug-resistant tuberculosis and drug-sensitive tuberculosis (8.3)

min)

Liyan Qiu; Ningbo / China



## RPS 114 - Improving radiation protection outcomes through radiographic practice enhancement

Categories: EuroSafe Imaging/Radiation Protection, Imaging Methods, Physics in Medical Imaging, Radiographers

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderators:**

Nejc Mekis; Ljubljana / Slovenia Maria Raissaki; HERAKLION / Greece

Exposure factors prediction model for large size patients in projection radiography (8 min)

Saeed Jaber M Algahtani; Exeter / United Kingdom

Cumulative radiation dose from medical imaging in children with congenital heart disease (8 min)

Mark F. F. McEntee; Cork / Ireland

Suitable measures for reducing low-value radiological services in Norway: preliminary results from a qualitative multi-professional study (8 min)

Eivind R. Andersen; Gjøvik / Norway

Using beam hardening techniques as a dose optimisation tool in digital planar radiography (8 min)

Jose Guilherme Couto; Msida / Malta

 $\textbf{Radiation protection measures used in Portuguese interventional radiology departments: a national survey (8 \ min)}\\$ 

Andrea Susana Pimenta; Porto / Portugal



## PP 1 - Bridging from neuroanatomy to anatomy of head and neck and vascular imaging

Categories: Head and Neck, Hybrid Imaging, Molecular Imaging, Neuro, Translational Imaging

Date: July 13, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

**Moderator:** 

Ruxandra-Iulia Milos; Vienna / Austria

Viscosity assessment of parotid and submandibular glands in healthy subjects with the novel Viscosity Plane-wave UltraSound (ViPLUS) technique (8 min)

Delia Doris Muntean; Cluj-Napoca / Romania

Craniometry and imaging markers of the craniovertebral junction (8 min)

José Sá Silva; Porto / Portugal

Brainstem anatomy: from histological staining to in-vivo 7T-MRI (8 min)

Graziella Donatelli; Pisa / Italy

Changes in intra- and extracranial carotid plaque calcification: a 2 years follow-up study (8 min)

Taihra Zadi; Rotterdam / Netherlands

Intracranial vascular malformations: what radiologists need to know (8 min)

Adonis Manzella; Recife / Brazil

A pictorial essay of cranial neurovascular conflicts: where to look and when to report (8 min)

Gabriela Rotariu; Iasi / Romania

NOWinBRAIN: a large, systematic, comprehensive and freely available neuroimage repository bridging neuroradiology, neuroanatomy, neuroscience, neuroeducation and art (8 min)

Wieslaw Lucjan Nowinski; Lomianki / Poland

Does the extent of FLAIR vessel hyperintensities predict futile recanalisation after mechanical thrombectomy? (8 min)

Alexandre Bani Sadr; Lyon / France

Impact of directions removal on DTI markers used in clinical routine (8 min)

Damien Galanaud; Paris / France



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APT-weighted MRI, a familiar stranger: uses and applications of APTw MRI technique in CNS tumours (8 min)

Jose Manuel Brenes Castro; Barcelona / Spain



#### RPS 103 - MRI and CT in acquired and genetic cardiac disease

Categories: Cardiac, Hybrid Imaging, Multidisciplinary

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Lamia Jamjoom; Jeddah / Saudi Arabia

Nano-scale 3D morphological characterisation of cardiac micro-thrombi from COVID-19 positive patients via synchrotron CT (8 min)

Giacomo Edoardo Barbone; München / Germany

Prevalence and association of cardiac magnetic resonance detected myocardial injury with cardiac symptoms in patients hospitalised due to COVID-19 (8 min)

Aria Yar; Espoo / Finland

Clinical course of acute myocarditis and pericarditis after Sars-Cov-2 vaccine with cardiac magnetic resonance (8 min) Nicola Galea; Roma / Italy

Hemoglobin A1c in type 2 diabetes mellitus patients with preserved ejection fraction is an independent predictor of left ventricular myocardial deformation and tissue abnormalities (8 min)

Zhiming Li; Kunming / China

Influence of PCSK-9 inhibitor therapy on CT-FFRML in a patient cohort with familial hypercholesterolemia or contraindications to statin therapy and/ or therapy refractory to statin therapy (8 min)

Daniel Pasqual Overhoff; Mannheim / Germany

Cardiovascular magnetic resonance imaging in Noonan syndrome: case series of young children (8 min) Wenjing Yang; Beijing / China

Added value of the T1 and T2 mapping sequences in the diagnosis of acute myocarditis (8 min)

Habiba Mizouni; Tunis / Tunisia



#### **RPS 108 - Temporal bone imaging**

Categories: Head and Neck, Imaging Methods Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Zoran Rumboldt; Rovinj-Rovigno / Croatia

The visibility of extra cranial facial nerve and his anatomical variants in 3D spin echo T2 sequence on a 1.5 Tesla MRI (8

mın

Habiba Mizouni; Tunis / Tunisia

Radiological evaluation of tympanic segment of normal chorda tympani nerve: implications for transcanal middle ear surgery (8 min)

Ruowei Tang; Beijing / China

Photon-counting detector CT virtual monoengergetic images for cochlear implant visualisation: a head to head comparison to energy-integrating detector CT (8 min)

Stephan Waldeck; Koblenz / Germany

MRI features of spontaneous lateral temporal bone cephaloceles (8 min)

Rohit Srinivasan; London / United Kingdom

Intralabyrinthine hemorrhage as a cause of sudden deafness (8 min)

Serena Palizzi; Roma / Italy

Cortical sulcus depth alterations in patients with tinnitus before and after sound therapy: a surface-based morphometry study (8 min)

Xuan Wei; Beijing / China



#### RC 113 - Blue skies and newest trends in CT

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Imaging Methods, Physics in Medical Imaging,

Professional Issues

ETC Level: LEVEL III

**Date:** July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Andreas Boss; Zürich / Switzerland

Chairperson's introduction (5 min)

Andreas Boss; Zürich / Switzerland

Photon-counting CT (15 min)

Cynthia McCollough; Rochester / United States

Artificial intelligence-based CT reconstruction (15 min)

Marc Kachelrieß; Heidelberg / Germany

The advances I want to see in the next 10 years (15 min)

Mathias Prokop; Nijmegen / Netherlands

Panel discussion: What will be the clinical impact of each advance? (10 min)



## RC 102 - Contrast-enhanced mammography (CEM)

Categories: Breast, Imaging Methods, Oncologic Imaging

ETC Level: LEVEL II

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Gordana Ivanac; Zagreb / Croatia

Chairperson's introduction (5 min)

Gordana Ivanac; Zagreb / Croatia

How I do CEM (20 min)

Jose Carlos Antela López; Las Palmas de Gran Canaria / Spain

**Current evidence: limitations and applications** (20 min)

Jacopo Nori; Florence / Italy

Panel discussion: As CEM is here to stay, how do we integrate it in our everyday clinical practice? (15 min)



## RC 101 - What should a radiologist do with a fatty liver?

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Multidisciplinary

ETC Level: LEVEL I+II

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Valérie Vilgrain; Clichy / France

Chairperson's introduction (5 min)

Valérie Vilgrain; Clichy / France

How to deal with fatty infiltration of the liver? A clinician's point of view (15 min)

Peter R Galle; Mainz / Germany

Quantification of fat: a role for CT? (15 min)

Perry J. Pickhardt; Madison / United States

Quantification of fat: a role for MRI? (15 min)

Giuseppe Corrias; New York / United States

Panel discussion: Is quantification relevant for the clinical outcome? (10 min)



#### RPS 110 - Musculoskeletal oncology

Categories: EuroSafe Imaging/Radiation Protection, Imaging Methods, Musculoskeletal, Oncologic Imaging

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderator:**

Violeta Vasilevska Nikodinovska; Skopje / Macedonia

Intravoxel incoherent motions imaging combined with diffusion kurtosis imaging to assess the response to radiotherapy in rabbit VX2 malignant bone tumor model (8 min)

Jia Guo; QING DAO / China

MRI radiomics-based machine learning to predict neoadjuvant chemotherapy response in Ewing sarcoma (8 min)

Salvatore Gitto; Milano / Italy

Concordance of histopathological and radiological grading in musculoskeletal sarcomas: how far can we go with MRI findings? (8 min)

Mahmut Bilal Doğan; Istanbul / Turkey

Multi-parametric magnetic resonance imaging for radiotherapy response monitoring in soft-tissue sarcomas: a concept study for a histology and MRI co-registration algorithm (8 min)

Matthias Jung; Freiburg / Germany

CT-guided fine-needle aspiration and core biopsy, prognostic factors and diagnostic accuracy as individual and combined procedures in bone tumours (8 min)

Nicolás Andrés Ochoa Sambrizzi; Barcelona / Spain

Whole body low dose computed tomography (WBLDCT) in comparison with whole body magnetic resonance imaging (WBMRI) in the assessment of multiple myeloma (8 min)

Teresa Paola Giandola; Monza / Italy

Diagnostic value whole-body magnetic resonance imaging (WBMRI) short protocols in the evaluation of bone marrow involvement in multiple myeloma (8 min)

Teresa Paola Giandola; Monza / Italy



## IF 1 - The radiographer-patient relationship

**Categories:** Professional Issues, Radiographers **Date:** July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Charlotte A. Beardmore; London / United Kingdom

Introduction (5 min)

Charlotte A. Beardmore; London / United Kingdom

A holistic approach to patient care: the patient's perspective (10 min)

Evelyn Steinthaler; Vienna / Austria

A holistic approach to patient care: the radiographer's perspective (10 min)

Michaela Dawn Davis; Dublin / Ireland

How technology can enhance the radiographer-patient interaction: the patient's perspective (10 min)

Caroline Justich; Vienna / Austria

How technology can enhance the radiographer-patient interaction: the radiographer's perspective (10 min)

Anastasia Sarchosoglou; Athens / Greece

Panel discussion: Are there sufficient radiographer-focused continuing professional development opportunities related to enhancing communication skills? (15 min)



## RPS 105 - Artificial intelligence in prostate and retroperitoneal imaging

Categories: Artificial Intelligence & Machine Learning, Genitourinary, Oncologic Imaging

Date: July 13, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

**Moderator:** 

Heinz-Peter Schlemmer; Heidelberg / Germany

Deep learning-based segmentation for prostate cancer risk assessment in magnetic resonance imaging (8 min)

Eduardo H. P. Pooch; Amsterdam / Netherlands

Automatic quality control of diffusion magnetic resonance images for prostate cancer in clinical routine (8 min)

Alexandre Routier; Paris / France

Who is best? Comparing radiologists, radiomics and deep learning for the assessment of renal masses on computed tomography (8 min)

Sophie Bachanek; Goettingen / Germany

**Deep learning for bone lesion detection in CT TAP** (8 min)

Pawel Mlynarski; Paris / France

Multi-stage Al analysis system to support prostate cancer diagnostic imaging across multiple centres and scanners (8

min)

Mark Hinton; Cambridge / United Kingdom

Does deep-learning software improve the consistency of PI-RADS scoring amongst radiologists with various levels of expertise? (8 min)

Deniz Alis; Istanbul / Turkey

Deep learning image reconstruction algorithm improves image quality of abdominal computed tomography: extensive comparison with hybrid iterative reconstruction (8 min)

Antonella Del Gaudio; Rome,IT / Italy





## ESR/EFSUMB - Multiparametric ultrasound (MPUS) for diagnostic conundrum: where is it useful?

Categories: Artificial Intelligence & Machine Learning, Contrast Media, Education, Imaging Methods, Ultrasound

ETC Level: LEVEL III

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderators:**

Vito Cantisani; Roma / Italy Mirko D'Onofrio; Verona / Italy

#### Chairpersons' introduction (2 min)

Vito Cantisani; Roma / Italy Mirko D'Onofrio; Verona / Italy

#### MPUS in breast (12 min)

Boris Brkljačić; Zagreb / Croatia

## MPUS in thyroid (12 min)

Vito Cantisani; Roma / Italy

#### MPUS in testis (12 min)

Michele Bertolotto; Trieste / Italy

#### MPUS in pancreas (12 min)

Adrian Saftoiu; Bucharest / Romania

Panel discussion: Do you believe B-mode ultrasound as a stand-alone technique is outdated? (10 min)



## BS 1 - Radiologic anatomy: musculoskeletal system

Categories: Musculoskeletal

ETC Level: LEVEL |+||

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Koenraad Verstraete; Sint-Michiels / Belgium

Spine (18 min)

Bernhard Tins; Oswestry / United Kingdom

Upper limb (18 min)

Kris Mertens; Merchtem / Belgium

Lower limb (18 min)

Andrew J Grainger; Cambridge / United Kingdom

Questions and answers (6 min)



#### **RPS 116 - Genitourinary oncology**

Categories: Genitourinary, Imaging Methods, Nuclear Medicine, Oncologic Imaging, Physics in Medical Imaging

Date: July 13, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Davide Prezzi; London / United Kingdom

Survival analysis of patients with endometrial cancer using an integrated radiomics model (8 min)

Alexander Sheeka; Colchester / United Kingdom

De novo radiomics with image augmentation and features from T1 mapping to predict Gleason scores in prostate cancer (8 min)

Keno K. Bressem; Berlin / Germany

High-risk imaging features in prostate cancer (8 min)

Joao Amorim; Porto / Portugal

Comparison of diagnostic performance between diffusion kurtosis imaging parameters and mono-exponential ADC for determination of clinically significant cancer in patients with prostate cancer (8 min)

Seung Ho Kim; Busan / Korea, Republic of

Correlation between prostate specific antigen density (PSAD) and prostate cancer among African men at the Aga Khan University hospital, Nairobi (AKUH-N) (8 min)

Edwin Orenge Masara; Nairobi / Kenya

Comparison of 68 GA PSMA and whole-body diffusion-weighted MR imaging in staging of high-risk prostate cancer (8 min)

Bagyam Raghavan; Chennai / India

 $\begin{array}{c} \textbf{Prediction of axillary lymph node metastasis of early-stage breast cancer by ultrasound and pathology: to avoid unnecessary axillary lymph node dissection (8 min) \end{array}$ 

Lei Yang; Nantong / China



## **CUBE 1 - Piping the periphery**

**Categories:** Interventional Radiology **Date:** July 13, 2022 | 09:00 - 09:30 CEST

CME Credits: 0.5

**Piping the periphery** (30 min) Antonio Bosca Ramón; Valencia / Spain



## **HD 1 - Highlights of the Day**

**Date:** July 13, 2022 | 09:15 - 09:30 CEST

## **Moderator:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands



#### RPS 215 - Artificial intelligence and more for vascular imaging

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Imaging Methods, Research, Vascular

Date: July 13, 2022 | 09:30 - 10:30 CEST

CME Credits: 1

**Moderator:** 

Stevo Duvnjak; Copenhagen / Denmark

Image quality of deep learning algorithm on head and neck CTA using 100 kVp (8 min)

Xiaoping Lu; Beijing / China

Artificial intelligence in the evaluation of peripheral arterial disease in lower limbs (8 min)

Sudhanshu Sunil Tonpe; NAGPUR / India

Iterative reconstruction vs. deep learning image reconstruction: comparison of image quality and diagnostic accuracy of arterial stenosis in low-dose lower extremity CT angiography (8 min)

Ting Ting Qu; Xi'an / China

Prediction of aortic dilatation in surgically repaired type A dissection: a longitudinal computational fluid dynamics study (8 min)

Yu Zhu; London / United Kingdom

Image fusion guidance for in-situ fenestration during thoracic endovascular repair (8 min)

Liang Zhao; Shanghai / China



#### RPS 206 - PET/MRI, MRS and radiomics

Categories: Artificial Intelligence & Machine Learning, Hybrid Imaging, Molecular Imaging, Nuclear Medicine, Oncologic Imaging,

Translational Imaging

Date: July 13, 2022 | 09:30 - 11:00 CEST

**CME Credits: 1.5** 

**Moderator:** 

Peter Brader: Graz / Austria

The more the better? Multiparametric simultaneous 18F-FDG PET/MRI vs DCE-MRI for breast cancer diagnosis (8 min)

Valeria Romeo; Naples / Italy

Multiparametric dual timepoint 18F-FDG PET/MRI imaging for lymph node staging in Figo I/II cervical carcinoma (8 min)

Matthias Weissinger; Tübingen / Germany

Improving the diagnostic performance of 2HG MR spectroscopy utilising creatine as an internal reference (8 min)

Dominik Juskanic; Nitra / Slovakia

Quantitative assessment of spatial relationships between brain perfusion MRI and 11C-Methionine PET in neuro-

oncology by means of a fully hybrid PET/MR system (3T) (8 min)

Maurizio Barbera; Milano / Italy

Prognostic significance of 68 gallium fibroblast activation protein inhibitor versus 18 fluorodeoxyglucose positron emission tomography/computed tomography in gastric neoplasm subtypes (8 min)

Nadezhda Gloria Alemao Niyarah; Bangalore / India

Assessing radio-chemotherapy response in glioblastoma tumour models using 2H-labeled fumarate and deuterium magnetic resonance spectroscopic imaging (8 min)

Friederike Hesse; Cambridge / United Kingdom

Magnetic multimodality imaging of plectin-1-targeted nanoparticles for the precise detection of pancreatic ductal adenocarcinoma (8 min)

Wenjia Zhang; Beijing / China

ComBat harmonisation of multi-centric 18F-FDG-PET/CT and PET/MRI radiomic data: impact on tissue classification (8

min)

Doris Leithner; New York / United States

Fully automated staging via PET-CT of primary Hodgkin Lymphoma using a deep learning approach (8 min)



Kaspar Ekert; Ulm / Germany

Radiomic features as biomarkers of soft tissue paediatric sarcomas: results of a PET/MR study (8 min) Giulia Fichera; Padua / Italy

The value of 18F-FDG PET/MRI in prediction of microvascular invasion in hepatocellular carcinoma (8 min) Ayşegül Görmez; ATAŞEHİR / Turkey



#### RPS 205 - Artificial intelligence (AI) in the management of COVID-19

Categories: Artificial Intelligence & Machine Learning, Chest, Emergency Imaging

Date: July 13, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

#### **Moderator:**

Laurens Topff; Amsterdam / Netherlands

U-Net based denoising of sparsely sampled chest CT scans can be used to reduce radiation dose for detection of COVID-19 pneumonia (8 min)

Felix Carl Daniel Hofmann; Munich / Germany

Comparison of clinical, radiological and combined machine learning models in predicting COVID-19 patients who will require intensive care unit (8 min)

Mutlu Gulbay; Ankara / Turkey

A Computer-Aided Diagnosis (CAD) system for quantitative assessment of COVID-19 pneumonia severity from chest computed tomography images (8 min)

Alysson Roncally Silva Carvalho; Porto / Portugal

CNN-based automatic analysis of chest radiographs for the detection of COVID-19 pneumonia: a prioritising tool in the emergency department, phase I study and preliminary "real world" results (8 min)

Matteo Barba; Avigliana / Italy

Artificial intelligence and COVID-19: CT-based radiomics can identify false-negative swabs (8 min)

Nicolò Cardobi; Verona / Italy

Artificial intelligence based severity assessment of COVID-19 pneumonia using a multireader chest x-ray dataset (8 min)

Giovanni Tessarin; Mogliano veneto / Italy

Radiomics and machine learning in predicting pathophysiologic changes in patients with COVID-19-associated pneumonia (8 min)

Sarah Meribout; Constantine / Algeria

Artificial intelligence algorithm for automated detection of compression fractures and low vertebral body mineral density using chest CT images during the COVID-19 pandemic (8 min)

Alexey Petraikin; Moscow / Russia



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Development and validation of a prognosis and intervention prediction model for COVID-19 patients using clinical findings and artificial intelligence interpreted chest radiographs (8 min)

Jong Seok Ahn; Seoul / Korea, Republic of

Al-assisted COVID-19 detection on unsegmented chest CT scans (8 min)

Lucian Mihai Florescu; Craiova / Romania

An integrated method to detect silent failures in pretrained nnU-Net models for COVID-19 lung lesion segmentation: towards automated failure detection of DNNs (8 min)

Camila Gonzalez; Darmstadt / Germany



#### RPS 201 - Imaging advances in chronic liver disease assessment and treatment

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Interventional Radiology, Ultrasound

Date: July 13, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Moderator:** 

Bernard Van Beers; Clichy / France

Imaging features in patients with porto-sinusoidal vascular disease (PSVD) - radiological evaluation guiding diagnosis

(8 min)

Katharina Lampichler; Vienna / Austria

Hepatic elastic modulus and haemodynamic liver index: novel non-invasive parameters for prediction of presence and grade of oesophageal varices in cirrhotic patients (8 min)

Abhilasha Rana; Delhi / India

To evaluate the effectiveness and safety of endovascular intervention in the management of nonportal hypertension related gastrointestinal bleeding at a Vietnamese hospital (8 min)

Tuan Huynh Nhat Nguyen; Ho Chi Minh / Vietnam

TRANS-TACE: prognostic role of the transient hypertransaminasaemia after conventional chemoembolisation for hepatocellular carcinoma (8 min)

Nicolò Brandi; Bologna / Italy

Splenic volume as prognostic factor for patients with hepatocellular carcinoma undergoing TACE: fully automated volume assessment using a 3D segmentation convolutional neural network (8 min)

Felix Hahn; Mainz / Germany

Spleen stiffness: a determinant of portal hypertension with Oesophageal varices (8 min)

Rajul Rastogi; Moradabad / India

Correlation between hepatic and splenic volumes and portal venous pressure in cirrhotic patients candidate for transjugular intrahepatic portosystemic shunt (TIPS) (8 min)

Lorenzo Maria Giuseppe Bianchi; Milan / Italy

HCC-MRI score: a simplified criteria for the diagnosis of hepatocellular carcinoma in high-risk patients using contrastenhanced MRI of liver (8 min)

Wanwarang Teerasamit; Bangkok / Thailand

Quantitative MRI in the evaluation of patients with non-alcoholic steatohepatitis (NASH) (8 min)



## BUILDING BRIDGES JULY 13-17 | VIENNA

Francesco Pucciarelli; Rome / Italy

The "stiff rim" sign of hepatocellular carcinoma on shear wave elastography: correlation with pathological features and potential prognostic value (8 min)

Xian Zhong; Maastricht / Netherlands

CT-derived quantitative parameters of oesophageal varices for evaluation of severe varices and the risk of bleeding: a pilot study (8 min)

Shang Wan; Cheng DU / China





## RPS 214 - Optimising oncology imaging, treatment, and the patient experience

Categories: EuroSafe Imaging/Radiation Protection, Imaging Methods, Oncologic Imaging, Physics in Medical Imaging, Radiographers

**Date:** July 13, 2022 | 09:30 - 10:30 CEST

**CME Credits:** 1

#### **Moderators:**

Anastasia Sarchosoglou; Athens / Greece Damiano Caruso; Roma / Italy

Analysis of dose and acute radio-toxicity in breast cancer patients (8 min)

Ana Maria Carmo; Olhão / Portugal

Dosimetric comparison of 3D-CRT and VMAT techniques applied to patients with lung cancer (8 min)

Célia Pestana; Tavira / Portugal

Application of advanced MRI techniques in white matter characterisation of patients affected by meningioma treated with proton therapy (8 min)

Luca Anemoni; San Genesio Ed Uniti / Italy

Women's positive and less positive experiences of mammography and radiotherapy services during their breast cancer care pathway (8 min)

Eija Metsälä Metsälä; Helsinki / Finland

Patients' perceptions of the skills and competencies of therapeutic radiographers across Europe (8 min)

Sonyia Lorraine McFadden; Belfast / United Kingdom

The lived experiences of radiotherapists treating paediatric patients in Gauteng, South Africa (8 min)

Sidra Siddique; Johannesburg / South Africa



## RT 2 - Adaptations of screening programmes during the COVID pandemic: what is the impact?

Categories: Education, Multidisciplinary, Oncologic Imaging, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 09:30 - 10:30 CEST

#### **Moderators:**

Michael Fuchsjäger; Graz / Austria

Regina G. H. Beets-Tan; Amsterdam / Netherlands

#### Chairpersons' introduction (2 min)

Michael Fuchsjäger; Graz / Austria

Regina G. H. Beets-Tan; Amsterdam / Netherlands

#### Changes and adaptations in breast cancer screening during the COVID pandemic (10 min)

Fiona J. Gilbert; Cambridge / United Kingdom

#### Changes and adaptations in bowel cancer screening during the COVID pandemic (10 min)

Monika Ferlitsch; Vienna / Austria

#### **Discussion** (38 min)

Greg Sorensen; Boston / United States Fiona J. Gilbert; Cambridge / United Kingdom Geerard L. Beets; Amsterdam / Netherlands

Boris Brkljačić; Zagreb / Croatia Monika Ferlitsch; Vienna / Austria



## **RPS 207 - Advances in prostate imaging**

Categories: Genitourinary

Date: July 13, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Moderator:** 

Tristan Barrett; Cambridge / United Kingdom

MRI T1 mapping for the assessment of the prostate: a new diagnostic tool (8 min)

Omar Al-Bourini; Goettingen / Germany

Promoting the use of the PRECISE score for prostate MRI during active surveillance: results from the ESOR Nicholas Gourtsoyiannis teaching fellowship (8 min)

Francesco Giganti; London / United Kingdom

Time-series radiomics outperforms conventional radiomics approaches for the prediction of prostate cancer histopathological progression on active surveillance (8 min)

Nikita Sushentsev; Cambridge / United Kingdom

Strategy of target biopsy and number of target cores for a PI-RADS 3-5 index lesion to reduce Gleason score underestimation: a propensity score-matching analysis (8 min)

Byung Kwan Park; Seoul / Korea, Republic of

Vector prostate biopsy: a novel electro-magnetic biopsy technique for mpMRI/US fusion transperineal prostate biopsies under local anaesthesia (8 min)

Peter Fletcher; Cambridge / United Kingdom

The diagnostic performance in clinically significant prostate cancer with PI-RADS version 2.1: fast-MRI versus standard mpMRI (8 min)

Jihui Song; Dalian / China

Analysis of dose distribution at organs at risk in patients with early stage prostate cancer treated with the robotic stereotactic body radiation therapy (SBRT) and pencil-beam scanning proton therapy (8 min)

Nikita Kataev; Saint-Petersburg / Russia

Effects of dynamic contrast enhancement on transition-zone prostate cancer in PI-RADS version 2.1 (8 min)

Jiahui Zhang; Beijing / China

Utility of 2D shear-wave elastography for the detection of prostate cancer: a preliminary study (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

Chan Kyo Kim; Seoul / Korea, Republic of

Promoting the use of the PI-QUAL score for prostate MRI quality: results from the ESOR Nicholas Gourtsoyiannis teaching fellowship (8 min)

Francesco Giganti; London / United Kingdom



# **RPS 213 - Advances in CT and radiation protection**

**Categories:** Physics in Medical Imaging **Date:** July 13, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Moderator:** 

Federica Zanca; Leuven / Belgium

Suppressing beam-hardening artefact using a novel edge-on silicon photon-counting CT (8 min)

Dominic Crotty; Cork / Ireland

Low-dose lung cancer screening with a novel CZT photon-counting CT prototype: a phantom study (8 min)

Thomas Wesley Holmes; Atlanta / United States

Reliability of computed tomographic dose data: comparing the tin filter technique with conventional scanning protocols using thermoluminescence dosimeter measurements (8 min)

Simone Schüle; Munich / Germany

Impact of iterative reconstruction algorithms on the applicability of the Fourier-based detectability index for X-ray CT imaging (8 min)

Eléonore Pouget; Clermont-Ferrand / France

Image quality and dose reduction potential of an artificial intelligence deep-learning reconstruction algorithm for abdomen CT examinations: a study on phantoms (8 min)

Joel Greffier; Nimes / France

Radiation dose and image quality in middle and inner ear CT imaging: comparison between multidetector CT and 3D flat-panel rotational acquisitions on two different phantoms (8 min)

Luca Bellesi; Bellinzona / Switzerland

A new performance evaluation method for high-resolution CT using changes in CT values (improved spatial resolution and increased CT value for small objects) (8 min)

Katsumi Tsujioka; Toyota-City Aichi / Japan

Comparison of patient exposure and routine protocols for multidetector computed tomography angiography examinations of patients with peripheral artery disease (8 min)

Desislava Kostova-Lefterova; Sofia / Bulgaria

Molecular biological response in peripheral blood cells after tin filtration in computed tomography (8 min)





Simone Schüle; Munich / Germany

An audit on the awareness of radiation risks, radiation legislation and referral guidelines (iRefer) amongst junior doctors (8 min)

Sathvikha Subramanian Parameswaran; Lincoln / United Kingdom

ZrO2-reinforced PVA nanofibers produced for radiation ray-shielding studies as a protective vest in the radiology department (8 min)

Ali Fuat Fuat Tekin; Istanbul / Turkey



# CUBE 2 - Patient safety and practice in interventional Radiology: the extended role of radiographers

**Categories:** Interventional Radiology **Date:** July 13, 2022 | 09:30 - 10:00 CEST

CME Credits: 0.5

Patient safety and practice in interventional Radiology: the extended role of radiographers (30 min)

Silvia Svetlic; Milan / Italy



# BS 2 - Developing our future radiography academics

Categories: Education, Professional Issues, Radiographers, Research, Students

Date: July 13, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Moderator:** 

Carst Buissink; Groningen / Netherlands

Priorities in academic recruitment and development (18 min)

Jonathan McNulty; Dublin / Ireland

Preparing for an academic career (18 min)

Moreno Zanardo; Milan / Italy

Clinical academics (18 min)

Beverly Snaith; Bradford / United Kingdom

Benefits of an academic career (18 min)

Luis Lanca; Lisboa / Portugal

Panel discussion: How can we overcome barriers to ensure skilled clinical radiographers can have academic career options? (18 min)



# E<sup>3</sup> 219 - Bone metastases: a multidisciplinary approach

Categories: Interventional Oncologic Radiology, Interventional Radiology, Multidisciplinary, Musculoskeletal, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

#### **Moderators:**

Fernando Gomez Muñoz; Barcelona / Spain Roberto Luigi Cazzato; Stasbourg / France

#### Chairpersons' introduction (5 min)

Fernando Gomez Muñoz; Barcelona / Spain Roberto Luigi Cazzato; Stasbourg / France

Oncologic and integrated management of bone metastases: the oncologist's perspective (10 min)

Philippe Trensz; Strasbourg / France

Radiation therapy of bone metastases: the radiation oncologist's perspective (10 min)

Steve Heymann; Strasbourg / France

Interventional treatment of bone metastases: the interventional radiologist's perspective (10 min)

Roberto Luigi Cazzato; Stasbourg / France

Case-based discussions (55 min)

Fernando Gomez Muñoz; Barcelona / Spain Roberto Luigi Cazzato; Stasbourg / France



# E<sup>3</sup> 221 - Current issues in chest radiology

Categories: Chest, General Radiology, Imaging Methods

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

Non COVID-19 lung infections (45 min)

Anagha P. Parkar; Bergen / Norway

Airways disease (45 min)

Gaël Dournes; Bordeaux / France



# E³ 222 - Follow-up after treatment for head and neck cancer: recurrence or not? A multidisciplinary approach

Categories: Head and Neck, Imaging Methods, Multidisciplinary, Nuclear Medicine, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

#### **Moderator:**

Emile Comans; Amsterdam / Netherlands

**Chairperson's introduction** (5 min) Emile Comans; Amsterdam / Netherlands

Follow-up after treatment for head and neck cancer: the surgical perspective (15 min)

Bernard F.A.M. van der Laan; The Hague / Netherlands

Imaging features after treatment for head and neck cancer: the radiologist's perspective (15 min)

Frank A. Pameijer; Utrecht / Netherlands

Optimal imaging strategy for follow-up after treatment for head and neck cancer: a nuclear physician's perspective (15 min)

Ben Zwezerijnen; Amsterdam / Netherlands

Multidisciplinary tumour board: case-based panel discussion (40 min)

Emile Comans; Amsterdam / Netherlands



# NH 2 - 3 years to go: breast imaging in 2025

Categories: Breast, Imaging Methods, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL II

Date: July 13, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Moderator:** 

Hilde Bosmans; Leuven / Belgium

Chairperson's introduction (5 min)

Hilde Bosmans; Leuven / Belgium

Breast x-ray in 2025: acquisition strategies and artificial intelligence techniques (18 min)

MaryellenL. Giger; Chicago, IL / United States

Breast MRI in 2025 (18 min)

Pascal A.T. Baltzer; Vienna / Austria

Breast ultrasound in 2025 (18 min)

Chris L de Korte; Nijmegen / Netherlands

The breast imaging clinic in 2025 and beyond (18 min)

Eva Maria M. Fallenberg; München / Germany

Panel discussion: How off are we in 2022? (13 min)



# OF 2Y - Meet the professors: part 1

Categories: Education, General Radiology, Management/Leadership, Professional Issues, Students

**ETC Level:** ALL LEVELS

Date: July 13, 2022 | 09:30 - 10:30 CEST

CME Credits: 1

**Moderator:** 

Martin Reim; Tartu / Estonia

Chairperson's introduction (5 min)

Martin Reim; Tartu / Estonia

Mentoring in radiology (10 min)

Valérie Vilgrain; Clichy / France

Speed mentoring: Mentors (22 min)

Yves Menu; Paris / France

Soraya Robinson; Vienna / Austria Valérie Vilgrain; Clichy / France

Speed mentoring: Mentees (22 min)

Nino Bogveradze; Amsterdam / Netherlands Zuhir Elkarghali; Amsterdam / Netherlands



# RC 210 - Essential measurements and classifications in musculoskeletal joint imaging

Categories: Evidence-Based Imaging, General Radiology, Imaging Methods, Musculoskeletal

**ETC Level:** ALL LEVELS

Date: July 13, 2022 | 09:30 - 10:30 CEST

CME Credits: 1

**Moderator:** 

Monique Reijnierse; Leiden / Netherlands

**Chairperson's introduction** (5 min) Monique Reijnierse; Leiden / Netherlands

Shoulder (9 min)

Üstün Aydingöz; Ankara / Turkey

Elbow-wrist-hand (9 min)

Aija Jaudzema; Riga / Latvia

Hip (9 min)

Vasco V Mascarenhas; Lisbon / Portugal

Knee (9 min)

Christoph Rehnitz; Heidelberg / Germany

Ankle-foot (9 min)

Eline De Smet; Edegem / Belgium

Panel discussion: How to integrate essential measurements and classifications into a structured report? (10 min)



# RPS 204 - COVID: chest radiology beyond the lungs

Categories: Artificial Intelligence & Machine Learning, Chest, Imaging Methods

Date: July 13, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Moderator:** 

Galit Aviram; Tel-Aviv / Israel

Al dual-energy CT lung analysis can help distinguish COVID-19 infiltrates from visually similar non-infectious pneumonitis and can optimise radiological workflows (8 min)

Andreas Stefan Brendlin; Tübingen / Germany

Lung vessel volume evaluated with CALIPER software is an independent predictor of mortality in COVID-19 patients: a multicentric retrospective analysis (8 min)

Chiara Romei; Pisa / Italy

**D-dimer threshold to rule-out pulmonary embolism in COVID-19 patients from emergency department undergoing CTPA** (8 min)

Brice Lefevre; La Tronche / France

Characteristics of chest CT-scan and outcome in pregnant patients with COVID-19: a cross-sectional study (8 min) Saeid Esmaeilian; Shiraz / Iran

Correlating COVID-19 disease severity and pulmonary vascular manifestations on CT pulmonary angiography (8 min) Farhana Binti Fadzli; Kuala Lumpur / Malaysia

Quantitative evaluation of pulmonary blood flow in patients three months after COVID-19 infection with extensive pulmonary parenchyma involvement (8 min)

Anna Zakharova; Saint Petersburg / Russia

Changing of pulmonary artery diameter in accordance with severity of COVID-19 (assessment based on non-contrast computed tomography) (8 min)

Nikita Kudryavtsev; Moscow / Russia

The effect of chest CT derived body composition and laboratory parameters on clinical outcomes in COVID-19 patients (8 min)

Raşit Eren Büyüktoka; İZMİR / Turkey

Clinical scores outmatch Al-based severity scoring and measurements indicating pulmonary hypertension on admission chest CTs for in-hospital mortality prediction in COVID-19 ICU patients (8 min)



Daniel Puhr-Westerheide; Munich / Germany

Changes in chest CT body composition parameters at 3 and 6 months after severe COVID-19 pneumonia (8 min) Filippo Monelli; Modena / Italy

**CT-derived pulmonary enhancement in short-term follow-up of COVID-19 patients: a case-control study** (8 min) Meghavi Mashar; Preston / United Kingdom



# SF 2a - Plaque imaging in 2022

Categories: Cardiac, Imaging Methods, Multidisciplinary, Ultrasound, Vascular

ETC Level: LEVEL III

Date: July 13, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Moderator:** 

Dirk Pickuth; Saarbrücken / Germany

**Chairperson's introduction** (5 min) Dirk Pickuth; Saarbrücken / Germany

Plaque imaging: a cardiologist's perspective (30 min)

Marcus Denis Flather; Norwich / United Kingdom

**CT** (20 min)

Pál Maurovich-Horvat; Budapest / Hungary

MRI (20 min)

Luca Saba; Cagliari / Italy

Panel discussion: Plaque imaging: where are we now? (15 min)



# SF 2b - Acute abdomen: a radiologist's survival guide

Categories: Abdominal Viscera, Emergency Imaging, GI Tract, Vascular

ETC Level: LEVEL II

Date: July 13, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Moderator:** 

Jaap Stoker; Amsterdam / Netherlands

**Chairperson's introduction** (5 min) Jaap Stoker; Amsterdam / Netherlands

Blunt abdominal trauma: a systematic approach (15 min)

Sabine Schmidt; Lausanne / Switzerland

Suspicion of GI perforation: a systematic approach (15 min)

Damian John Michael Tolan; Leeds / United Kingdom

Suspicion of GI ischaemia: a systematic approach (15 min)

Amir Reza Radmard; TEHRAN / Iran

Suspicion of abdominal inflammation: a systematic approach (15 min)

Ingrid Millet; Montpellier / France

Panel discussion: How do you outsmart your surgeon? (25 min)



# RPS 217 - Emergency patients management and COVID-19 complications: open questions

Categories: Abdominal Viscera, Chest, Emergency Imaging, Imaging Methods

Date: July 13, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

#### **Moderator:**

Johann Baptist Dormagen; Oslo / Norway

Who gets what imaged: exploring patient age and number of body regions imaged by CT in emergency room patients (8 min)

(8 min)

Jan Vosshenrich; Basel / Switzerland

Whole-body CT scan in polytrauma patients: estimation of radiation dose and cancer risk (8 min)

Mohamed M. Abuzaid; Sharjah / United Arab Emirates

Abnormal paraspinal fat pad and cervical spine measurements in the detection of disco-ligamentous injury in patients negative for osseous and malalignment cervical spine injury: comparison with MRI (8 min)

Pradeep Kumar Roul; Dehradun / India

CT imaging post resuscitation: do we really need CT pulmonary angiography after return of spontaneous circulation? (8 min)

Katharina Mueller-Peltzer; Freiburg / Germany

Association of PaO2 with chest radiograph in COVID-19 patients with need for ventilator support (8 min)

Rajul Rastogi; Moradabad / India

Spontaneous muscle haematomas in patients hospitalised for COVID-19 infection in the largest Serbian COVID hospital (8 min)

Ksenija Mijović; Belgrade / Serbia

COVID-19 gastrointestinal complication: imaging and pathological correlation. (8 min)

Ilaria Ambrosini; PISA / Italy

Correlation between periappendicular fat density value and clinical and radiological CT scores on CT in acute appendicitis cases (8 min)

Ebru Torun; Antalya / Turkey

Observation and repetitive ultrasound: a successful tool to reduce unnecessary CT scans in diagnostics of acute appendicitis (8 min)



Raminta Luksaite-Lukste; Vilnius / Lithuania

Acute pelvic pain in girls: how valuable is MR imaging as an adjunct to ultrasound? (8 min) Gabriele Masselli; Rome / Italy

Diagnostic errors in imaging and their impact when requesting patients to revisit the emergency room (8 min) Ayeon Son; Seoul / Korea, Republic of



# **CUBE 3 - Case studies presented through quiz**

**Categories:** Interventional Radiology **Date:** July 13, 2022 | 10:30 - 11:00 CEST

CME Credits: 0.5

Quiz (30 min)

Raúl García Marcos; Valencia / Spain



# **RPS 316 - Neuro-oncology**

Categories: Imaging Methods, Neuro, Oncologic Imaging, Translational Imaging

Date: July 13, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

#### **Moderator:**

Maria-Fatima Viana Vasco Aragao; Recife / Brazil

Quantitative volumetric tumour response in patients treated with combination Gamma Knife stereotactic radiosurgery and immunotherapy for melanoma brain metastases (8 min)

Mihir Shanker; Brisbane / Australia

[18F]FET PET/MRI: a novel and improved technique for detection of pituitary microadenoma (8 min)

Ilanah Johanna Pruis; Rotterdam / Netherlands

Clinical value of MRI screening for brain metastases in resected stage III melanoma (8 min)

Sophie Derks; Rotterdam / Netherlands

Analysis of dynamic susceptibility contrast MR perfusion parameters in differentiating radiation necrosis from glioblastoma multiforme recurrence (8 min)

Mateusz Krzysztof Radom; Gliwice / Poland

MRI posttreatment surveillance for head and neck squamous cell carcinoma: proposed MR NI-RADS criteria (8 min)

Manar Maamoun Mohamed Ashour; Cairo / Egypt

MRI texture analysis in prediction and differentiation of benign and malignant tumours of head and neck (8 min)

Yulduz Khodjibekova; Tashkent / Uzbekistan



# RPS 305 - Artificial intelligence (AI) meeting clinical needs in radiology: achievements and challenges

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Imaging Methods, Management/Leadership

Date: July 13, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

**Moderator:** 

Erik R. Ranschaert; Turnhout / Belgium

The rise of artificial intelligence solutions in radiology departments in the Netherlands (8 min)

Kicky Gerhilde van Leeuwen; De Bilt / Netherlands

Adversarial attacks in radiology (8 min)

Vera Sorin; Ramat Gan / Israel

Synthesis of medical images and corresponding ROI by paired-GAN (8 min)

Yaping Wu; Zhengzhou / China

Deep learning-based detector row upsampling to reduce windmill artifacts in diagnostic spiral CT (8 min)

Jan Magonov; Erlangen / Germany

Semi-supervised 3D universal lesion segmentation in CT thorax-abdomen scans (8 min)

Max Jacobus Johannes De Grauw; Velp (GE) / Netherlands

Radiomics and transvaginal ultrasound in adnexal masses: is the next future of diagnostics here? (8 min)

Valentina Chiappa; Milano / Italy



# RPS 317 - New technologies and advances in emergency radiology

Categories: Artificial Intelligence & Machine Learning, Emergency Imaging, Imaging Methods

Date: July 13, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

**Moderator:** 

Francesco Macri; Geneva / Switzerland

Beneficial usage of dual-energy CT brain imaging to detect intracranial haemorrhage in NCCT scan (8 min)

Pipat Chiewvit; Bangkok / Thailand

Dual Energy CT for differentiation of intraperitoneal haematoma and bowel structures (8 min)

Moritz T. Winkelmann; Tuebingen / Germany

CT MBIR applied to emergency radiology: image quality and radiation dose reduction (8 min)

Davide Ippolito; Monza / Italy

Ultra-low-dose CT (ULDCT) of the chest vs. chest x-ray (CXR) in non-traumatic emergency patients (8 min)

Christian Wassipaul; Wien / Austria

Role of the "fast" whole-body MRI in the diagnosis of mild/moderately injured patients (8 min)

Sophia Freya Ulrike Blum; Dresden / Germany

Initial CT-based three-dimensional radiomics of lung predicting acute kidney injury in patients with acute paraquat

intoxication (8 min)

Sha Ou; Kunming / China



# OF 3R - The future of the radiographer profession

Categories: Education, Management/Leadership, Professional Issues, Radiographers, Research

Date: July 13, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

**Moderator:** 

Jonathan McNulty; Dublin / Ireland

What does the EFRS Radiographer Education, Research, and Practice Project tell us about the future? (10 min)

Jonathan McNulty; Dublin / Ireland

The direction of travel for the radiographer profession (5 min)

Graciano Paulo; Coimbra / Portugal

Education: panel and open discussion (15 min)

Jonathan McNulty; Dublin / Ireland

Research: panel and open discussion (15 min)

Karen Knapp; Exeter / United Kingdom

Practice: panel and open discussion (15 min)

Charlotte A. Beardmore; London / United Kingdom



# RT 3 - Building bridges: value-based radiology in musculoskeletal imaging, a multidisciplinary perspective

Categories: General Radiology, Management/Leadership, Multidisciplinary, Musculoskeletal, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 11:30 - 12:30 CEST

**Moderator:** 

Jacob Johannes Visser; Rotterdam / Netherlands

**Chairperson's introduction** (5 min)

Jacob Johannes Visser; Rotterdam / Netherlands

Value in musculoskeletal radiology: the clinician's perspective (10 min)

Tom Piscaer; Rotterdam / Netherlands

Value in musculoskeletal radiology: the radiologist perspective (10 min)

Patrick Omoumi; Lausanne / Switzerland

Panel discussion (35 min)

Tom Piscaer; Rotterdam / Netherlands Patrick Omoumi; Lausanne / Switzerland Reto Merges; Erlangen / Germany Szabolcs Hetenyi; Barcelona / Spain



# **RC 315 - Vascular compression syndromes**

Categories: Abdominal Viscera, Cardiac, Chest, Interventional Radiology, Vascular

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

**Moderator:** 

Peter Reimer; Karlsruhe / Germany

Chairperson's introduction (5 min)

Above the diaphragm (20 min)

Tim Leiner; Rochester / United States

Below the diaphragm (20 min)

Stevo Duvnjak; Copenhagen / Denmark

Panel discussion: The need for interdisciplinarity in the treatment of vascular compression syndromes (15 min)



# OF 3Y - My involvement in a subspecialty committee: a multidisciplinary perspective (part 1)

Categories: Education, Management/Leadership, Multidisciplinary, Students

**ETC Level:** ALL LEVELS

Date: July 13, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

#### **Moderator:**

Doenja Marina Johanna Lambregts; Amsterdam / Netherlands

# **Chairperson's introduction** (5 min)

Doenja Marina Johanna Lambregts; Amsterdam / Netherlands

JESPeR (15 min)

Julian H.W. Jurgens; Hamburg / Germany

Young ESOI (15 min)

Damiano Caruso; Roma / Italy

Young ESSO (15 min)

Yvonne Schrage; Amsterdam / Netherlands

**Discussion** (10 min)



# ESR/EIBIR 3 - The MEDIRAD project: improving medical radiation protection for patients and staff

Categories: Breast, Cardiac, EuroSafe Imaging/Radiation Protection, General Radiology, Paediatric Imaging, Research

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

#### **Moderators:**

Elisabeth Cardis; Barcelona / Spain

Guy Frija; Paris / France

#### Chairpersons' introduction (5 min)

Elisabeth Cardis; Barcelona / Spain

Guy Frija; Paris / France

#### CT exposure in childhood and subsequent risk of cancer (10 min)

Elisabeth Cardis; Barcelona / Spain

# Patient-specific radiation dose and cancer risk for chest CT (10 min)

John Stratakis; Iraklion / Greece

# Cardiac CT and cardiac MRI biomarkers before and after breast cancer irradiation: the EARLY-HEART study (10 min)

Elie Mousseaux; Paris / France

# Effectiveness of staff radioprotective equipment during interventional procedures with a special focus on the eye lens and the brain (10 min)

Jeremie Dabin; Mol / Belgium

#### EIBIR activities and upcoming funding opportunities (5 min)

Nathan Peld; Vienna / Austria

Panel discussion: How can the results of the MEDIRAD project be translated into daily clinical practice? (10 min)





#### E<sup>3</sup> 30A - Cerebral ischaemia

Categories: General Radiology, Imaging Methods, Neuro, Vascular

ETC Level: LEVEL I+II

Date: July 13, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

**Moderator:** 

Luc Van Den Hauwe; Ekeren / Belgium

Cerebral ischaemia: beyond the usual suspects (20 min)

Thijs Van der Zijden; Antwerp / Belgium

How to assess and report CT angiography of the neck and intracranial vessels (20 min)

Elias Johansson; Umeå / Sweden

How to diagnose cerebral vein or dural sinus thrombosis and venous infarctions (20 min)

Diana Aguiar de Sousa; Lisbon / Portugal



# E<sup>3</sup> 25A - Acute pancreatitis

Categories: Abdominal Viscera, GI Tract, Imaging Methods

ETC Level: LEVEL I+II

Date: July 13, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

**Moderator:** 

Riccardo Manfredi; Roma / Italy

Atlanta classification of acute pancreatitis (30 min)

Thomas L. Bollen; Nieuwegein / Netherlands

Role of imaging (30 min)

Charikleia Triantopoulou; ATHENS / Greece



#### E<sup>3</sup> 24A - Fundamentals of musculoskeletal trauma

Categories: Emergency Imaging, Imaging Methods, Musculoskeletal, Neuro, Paediatric Imaging

ETC Level: LEVEL I+II

Date: July 13, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

**Moderator:** 

Antonio Leone; Rome / Italy

Paediatric skeleton (18 min)

Vasco V Mascarenhas; Lisbon / Portugal

Commonly missed peripheral injury (18 min)

Reto Sutter; Zürich / Switzerland

Spine (18 min)

Antonio Leone; Rome / Italy

Panel discussion (6 min)



# Al 2 - Al and Imaging Fostering Collaborative Research

Categories: Artificial Intelligence & Machine Learning

Date: July 13, 2022 | 12:00 - 13:00 CEST

**Moderator:** 

Wim Van Hecke; icometrix / Belgium

Introduction (3 min)

Wim Van Hecke; Icometrix / Belgium

Al and Imaging Fostering Collaborative Research (42 min)

Luis Marti-Bonmati; Valencia / Spain

**Q&A** (15 min)



# **RPS 416 - Miscellaneous oncology**

Categories: Artificial Intelligence & Machine Learning, Contrast Media, Evidence-Based Imaging, Imaging Methods, Oncologic

Imaging, Physics in Medical Imaging **Date:** July 13, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

#### **Moderator:**

Bram Van Ginneken; Nijmegen / Netherlands

Association of pre-radiotherapy tumour burden and overall survival in newly diagnosed glioblastoma corrected for MGMT methylation status: retrospective analysis of the EORTC CENTRIC-CORE trials (8 min)

Ahmad Alafandi; Rotterdam / Netherlands

Development of a standard of quality in medical imaging along the patient pathway (8 min)

Elisabeth Schouman-Claeys; Neuilly-sur-Seine / France

Use of T2 mDixon water image in oncological examination of soft-tissue MR (8 min)

Maria Johanna de Koning; Amsterdam / Netherlands

Image-guided superficial radiation therapy versus non-image guided superficial radiation therapy for treatment of non-melanoma skin cancer (NMSC): a comparison of studies (8 min)

Lio Yu; Dix Hils / United States

Skeletal muscle cut-offs to determine 3-month survival in frail older cancer patients (8 min)

Antti Tolonen; Tampere / Finland

Volumetric virtual non-calcium data of the spine's bone marrow compartment in healthy individuals: an Al-assisted reference cohort of 500 dual-energy scans (8 min)

Nils Grosse Hokamp; Cologne / Germany

Adherence of diagnostic accuracy studies published in Radiology to the STARD statement: a meta-analysis (8 min)

Ann-Christine Stahl; Berlin / Germany

Detecting different early changes after the singular or combination treatments of VEGF inhibitor and anti-PD-L1 antibody by multimodal imaging in a mouse liver cancer model (8 min)

Feng Pan; Wuhan / China



# RPS 403 - Cardiac MRI of cardiomyopathy: part 1

Categories: Cardiac, Imaging Methods, Multidisciplinary

Date: July 13, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Türker Acar; Izmir / Turkey

Different MRI presentation of arrhytmogenic cardiomyopathy: a challenge (8 min)

Elisa Listo; Firenze / Italy

Diastolic dysfunction assessment by CMR strain rate imaging reveals differences between hypertrophic phenotypes of fabry's disease and hypertensive heart disease (8 min)

Moritz Christian Halfmann; Mainz / Germany

Pancreatic iron correlates with alterations of glucose metabolism and cardiac iron in regularly transfused thalassemia intermedia patients (8 min)

Alessia Pepe; Pisa / Italy

The close link between pancreatic fat fraction and cardiac outcomes in thalassemia major (8 min)

Alessia Pepe; Pisa / Italy

Modern iron chelation management of thalassemia major patients guided by MRI techniques: real-world data from a long-term cohort study (8 min)

Akın Çinkooğlu; Izmir / Turkey

Comparison of T1 mapping and T2\* for cardiac iron overload assessment in thalassemia major patients (8 min)

Rajan Narendrabhai Patel; Bharuch / India

Impacts of T2DM on right ventricular systolic function and interactions between ventricles in patients with essential hypertension: evaluation by CMR tissue tracking (8 min)

Xue-Ming Li; Chengdu / China

Long-term effects of transjugular intrahepatic portosystemic shunt on cardiac structure and function in cirrhotic patients: a cardiac magnetic resonance imaging study (8 min)

Alexander Isaak; Bonn / Germany

Diffuse myocardial inflammation and fibrosis in patients with systemic lupus erythematosus insights from cardiac magnetic resonance T1 mapping (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

ECR 2022

Huaxia Pu; Chengdu / China



# CTiR 4 - Clinical Trials in Radiology 1

Date: July 13, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

#### **Moderators:**

Marc Dewey; Berlin / Germany Adrian Brady; Cork / Ireland

#### Chairpersons' introduction (10 min)

Marc Dewey; Berlin / Germany Adrian Brady; Cork / Ireland

Mammography screening with stand-alone artificial intelligence compared to single and double reading with and without consensus discussions (8 min)

Anders Tingberg; Malmö / Sweden

#### Discussant (4 min)

Eva Maria M. Fallenberg; München / Germany

Development and multicentre validation of a multiparametric imaging model to predict treatment response in rectal cancer (8 min)

Niels Schurink: Amsterdam / Netherlands

#### Discussant (4 min)

Martin Reim; Tartu / Estonia

Varying prognostic value of CT-derived CAD measures across ASCVD risk strata: insights from the PROMISE trial (8 min) Borek Foldyna; Boston / United States

#### Discussant (4 min)

Hatem Alkadhi; Zürich / Switzerland

Coronary computed tomography versus invasive coronary angiography in patients with stable chest pain referred for invasive coronary angiography with intermediate pretest probability of coronary artery disease (DISCHARGE): primary endpoint results from an open-label, parallel-group, multicentre trial (8 min)

Klaus F. Kofoed; Denmark

#### Discussant (4 min)

Rozemarijn Vliegenthart; Groningen / Netherlands



Fractal analysis of dynamic stress myocardial perfusion CT improves detection of obstructive coronary artery disease: a multicentre investigation (8 min)

Florian Michallek; Berlin / Germany

**Discussant** (4 min)

Christian Loewe; Vienna / Austria

Addition of FFRct in the Diagnostic Pathway of Patients with Stable Chest Pain (FUSION): rationale and design of a multicentre randomised controlled trial (8 min)

Simran Priyanka Sharma; Rotterdam / Netherlands

Discussant (4 min)

Maja Pirnat; Maribor / Slovenia



#### RPS 402 - How to improve lesion characterisation in breast imaging

Categories: Breast, Contrast Media, Evidence-Based Imaging, Imaging Methods

Date: July 13, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

#### **Moderator:**

Lucia Graña Lopez; Lugo / Spain

Structured reporting and clinical decision rules improve breast MRI assessment even in challenging clinical situations

(8 min

Matthias Dietzel; Erlangen / Germany

New suspicious findings on breast MRI during NACT follow-up: radiological-pathological correlation (8 min)

Mirjan M. Nadrljanski; Belgrade / Serbia

Quantification of enhancement intensity and pattern of benign and malignant lesions in contrast enhanced spectral mammography and its correlation with magnetic resonance imaging enhancement patterns (8 min)

Iris Allajbeu; Cambridge / United Kingdom

Diagnostic efficiency of ultrafast DCE breast MRI in differentiation of malignant and benign breast lesions (8 min)

Kartini Rahmat; Kuala Lumpur / Malaysia

A multicentric comparison of the Göttingen-score and the Kaiser-score in the assessment of breast MRI lesions (8 min)

Matthias Dietzel; Erlangen / Germany

Effects of BI-RADS combined with breast contrast-enhanced ultrasound (CEUS) prediction model on biopsy rate and assessing risk of malignancy of breast lesions (8 min)

Hao Wu; Chengdu / China

Influence of intravenous Gadolinium-based contrast on the estimation of IVIM parameters in breast MRI (8 min)

Barbara Fueger; Wien / Austria

Application of delayed-contrast MRI for improved sensitivity in breast cancer diagnosis (8 min)

Dianne Daniels; Tel-Hashomer / Israel

Incidental lesions detected on magnetic resonance imaging are more common among patients with luminal A-like

breast cancers (8 min)

Antti Sassi; Tampere / Finland



# BUILDING BRIDGES JULY 13-17 | VIENNA

ECR2022

Radiological features of B3 breast lesions in mutation carrier patients: our retrospective experience (8 min) Laura Messina; Rome / Italy



#### RPS 405 - Artificial intelligence (AI) in chest imaging: part 1

Categories: Artificial Intelligence & Machine Learning, Chest, Oncologic Imaging

Date: July 13, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Dag Wormanns; Berlin / Germany

Malignancy risk stratification for pulmonary nodules: comparing a deep-learning approach to multiparametric statistical methods (8 min)

Lars Piskorski; Heidelberg / Germany

Detection of unreported clinically significant pulmonary nodules using a combination of computer vision (CV) algorithm and report processing (8 min)

Dana Stav; Tel Aviv-Yafo / Israel

Earlier discharge of patients from follow-up for lung cancer screening using artificial intelligence for detection of pulmonary noduli on computed tomography (8 min)

Inge Gimbel; Utrecht / Netherlands

Al post-COVID study. Predicting post-COVID pulmonary sequelae applying Al to imaging and clinical data: preliminary results of an Italian multicentre study (8 min)

Silvia Gonella; Milan / Italy

Autonomous artificial intelligence-based reporting of chest x-rays in a primary health care setting in Oulu, FINLAND (8

min)

Osmo Tervonen; Oulu / Finland

Transfer learning with convolutional neural network for pneumonia detection on chest radiographs (8 min)

Mitsuteru Tsuchiya; Hamamatsu / Japan

Chest CT-based deep-learning model for predicting risk of transition to severe disease in patients with initial diagnosis of mild COVID-19 (8 min)

Xiaoping Yi; Changsha / China

Evaluation and determination of radiological findings of COVID-19 lung lesions in Latvia: study of artificial intelligence performance (8 min)

Laura Keisa; Rīga / Latvia



# BUILDING BRIDGES JULY 13-17 | VIENNA

The value of AI based CT severity scoring system in the triage of patients with Covid-19 pneumonia as regards oxygen requirement and place of admission (8 min)

ANIRUDH KOHLI; Mumbai / India

**Automated detection of emphysema using artificial intelligence on CT scans: accuracy and prognostic value** (8 min) Cristina Mota; Lousada / Portugal

Measuring the impact of Artificial Intelligence-enhanced x-ray image analysis on the reporting performance of frontline clinicians: the GE critical care suite pneumothorax reader study (8 min)

Alex Novak; Oxford / United Kingdom



# **BS 4a - Genitourinary**

Categories: General Radiology, Genitourinary, Imaging Methods

ETC Level: LEVEL I+II

Date: July 13, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Bernd Hamm; Berlin / Germany

**Imaging of the kidney** (30 min) Olivera Nikolic; Novi Sad / Serbia

Imaging of the urinary bladder (30 min)

Ahmet Tuncay Turgut; Ankara / Turkey

Imaging of the testis (30 min)

Lorenzo E. Derchi; Genoa / Italy



# SF 4a - Normal variants and diagnostic errors in child abuse: you can never know too much

Categories: Emergency Imaging, Imaging Methods, Medico-legal, Musculoskeletal, Paediatric Imaging

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Amaka C Offiah; Sheffield / United Kingdom

**Chairperson's introduction** (5 min) Amaka C Offiah; Sheffield / United Kingdom

Unusual suspects part 1: mimickers of abusive head trauma (18 min)

Cyrine Drissi; Kremlin-Bicêtre / France

Unusual suspects part 2: mimickers of inflicted skeletal injury (18 min)

Maria Raissaki; HERAKLION / Greece

What's in a name? Nomenclature of abusive trauma (18 min)

Ignasi Barber; EspluguesdeLlobregat / Spain

When and why we use CT or MRI in suspected inflicted trauma (18 min)

Rick van Rijn; Amsterdam / Netherlands

Panel discussion: Multidisciplinary assessment of the child and siblings: who, when, and how? (13 min)



# E<sup>3</sup> 418 - Soft tissue sarcoma: a multidisciplinary approach

Categories: Abdominal Viscera, Imaging Methods, Multidisciplinary, Musculoskeletal, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

#### **Moderator:**

Paul Gerard O'Donnell; Stanmore / United Kingdom

#### Chairperson's introduction (5 min)

Paul Gerard O'Donnell; Stanmore / United Kingdom

#### Soft tissue sarcomas and tight margins: surgical realities (15 min)

MichielA.J. vandeSande; Leiden / Netherlands

#### General imaging features of a soft tissue mass: can a benign mass be reliably distinguished from a sarcoma? (15 min)

Paul Gerard O'Donnell; Stanmore / United Kingdom

#### Distant staging of soft tissue sarcoma (15 min)

Michele Calleja; Stanmore / United Kingdom

#### Multidisciplinary tumour board: case based panel discussion (40 min)

Paul Gerard O'Donnell; Stanmore / United Kingdom Kirsten van Langevelde; Leiden / Netherlands MichielA.J. vandeSande; Leiden / Netherlands



# E<sup>3</sup> 431 - Solid lung nodules: how to diagnose and treat - a multidisciplinary approach

Categories: Artificial Intelligence & Machine Learning, Chest, Interventional Oncologic Radiology, Multidisciplinary, Oncologic

**Imaging** 

**ETC Level:** ALL LEVELS

Date: July 13, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Jürgen Biederer; Seeheim-Jugenheim / Germany

**Chairperson's introduction** (5 min)

Jürgen Biederer; Seeheim-Jugenheim / Germany

Morphological approach to solid lung nodules (10 min)

Arjun Nair; London / United Kingdom

How to manage solid lung nodules (15 min)

Constance De Margerie-Mellon; Paris / France

What to expect from artificial intelligence (AI) (15 min)

Colin Jacobs; Nijmegen / Netherlands

Multidisciplinary tumour board: case-based panel discussion (45 min)

Jürgen Biederer; Seeheim-Jugenheim / Germany

Elaine Borg; London / United Kingdom

Simon Wan



# E<sup>3</sup> 432 - Prostate cancer: a multidisciplinary approach

Categories: Genitourinary, Molecular Imaging, Multidisciplinary, Nuclear Medicine, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Anwar R. Padhani; Northwood / United Kingdom

**Chairperson's introduction** (5 min)

Anwar R. Padhani; Northwood / United Kingdom

Oligometastatic prostate cancer (OMPC): opportunities for advancing care (15 min)

Thomas Zilli; Geneva / Switzerland

Conventional versus next-generation imaging for detecting and directing MDT (20 min)

Irene Burger; Zürich / Switzerland

Pokemets, biases, and follow-up after MDT (20 min)

Stefano Fanti; Bologna / Italy

Multidisciplinary tumour board: case-based panel discussion (30 min)

Anwar R. Padhani; Northwood / United Kingdom



# OF 4b - New applications and technologies for the medical use of ionising radiation and related quality and safety perspectives (an update from the EURAMED rocc-n-roll project)

Categories: EuroSafe Imaging/Radiation Protection

ETC Level: LEVEL III

Date: July 13, 2022 | 13:00 - 14:00 CEST

**CME Credits:** 1

#### **Moderators:**

Christoph Hoeschen; Magdeburg / Germany

Katrine Riklund; Umeå / Sweden

#### Chairpersons' introduction (10 min)

Christoph Hoeschen; Magdeburg / Germany

Katrine Riklund; Umeå / Sweden

#### New applications and technologies in interventional procedures (10 min)

Christina Iosif; Athens / Greece

#### New developments in paediatric radiology (10 min)

Claudio Granata; Trieste / Italy

### The clinical EURAMED rocc-n-roll perspective on new developments (10 min)

Katrine Riklund; Umeå / Sweden

Open forum discussion (20 min)



# OF 4R - Specialising in medical imaging informatics

Categories: Education, Imaging Informatics, Multidisciplinary, Professional Issues, Radiographers

Date: July 13, 2022 | 13:00 - 14:00 CEST

**Moderator:** 

Christoph Kamp; Vienna / Austria

Chairperson's introduction (5 min)

Christoph Kamp; Vienna / Austria

What lies ahead in medical imaging informatics: the EuSoMII perspective (15 min)

Elmar Kotter; Freiburg / Germany

My role as a medical imaging informatics specialist (30 min)

Candice Whitfield; Newbridge / Ireland Simon Lysdahlgaard; Denmark

Open forum discussion (10 min)



# OF 4Y - My involvement in a subspecialty committee: a multidisciplinary perspective (part 2)

Categories: Education, Management/Leadership, Multidisciplinary, Students

**ETC Level:** ALL LEVELS

Date: July 13, 2022 | 13:00 - 14:00 CEST

CME Credits: 1

#### **Moderator:**

Doenja Marina Johanna Lambregts; Amsterdam / Netherlands

#### **Chairperson's introduction** (5 min)

Doenja Marina Johanna Lambregts; Amsterdam / Netherlands

#### EuSoMII Young Club (15 min)

Michail Klontzas; Heraklion / Greece

#### Young UEG (15 min)

Henriette Heinrich; Zurich / Switzerland

#### Young ESGAR (15 min)

Katja Natascha De Paepe; Cambridge / United Kingdom

**Discussion** (10 min)



# PC 4 - The sustainable imaging department

Categories: Contrast Media, General Radiology, Management/Leadership, Professional Issues, Radiographers

ETC Level: LEVEL I

Date: July 13, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Pim A. De Jong; Houten / Netherlands

Chairpersons' introduction: the circle is round (2 min)

Pim A. De Jong; Houten / Netherlands

Reducing costs in imaging acquisition (15 min)

Andrew G. Webb; Leiden / Netherlands

Reducing energy consumption in radiology reporting practice (15 min)

Wilfred C.G. Peh; Singapore / Singapore

Reducing waste in diagnostic and interventional radiology (15 min)

Joachim E. Wildberger; Maastricht / Netherlands

The sustainable employee: the search for high-performing teams in radiology through radiographers (15 min)

Elskemare Bonnema; Utrecht / Netherlands

Panel discussion: Triple-P bottom line in the imaging department (28 min)



# SF 4b - Subtle findings in emergency radiology: we have to be alert to recognise

Categories: Chest, Emergency Imaging, GI Tract, Head and Neck, Neuro

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Mariano Scaglione; CastelVolturno / Italy

**Chairperson's introduction** (5 min) Mariano Scaglione; CastelVolturno / Italy

Subtle findings in emergency neuroradiology (20 min)

Tilak Das; Cambridge / United Kingdom

Subtle imaging findings in chest emergencies (20 min)

Paola Franchi; Teramo / Italy

Subtle imaging findings in abdominal emergencies (20 min)

Ingrid Millet; Montpellier / France

Panel discussion: Which subtle imaging findings are helpful and how can imaging protocols be optimised? (25 min)



# CUBE 4 - IR as your future - more than catheters and guidewires

**Categories:** Interventional Radiology **Date:** July 13, 2022 | 14:00 - 14:30 CEST

CME Credits: 0.5

IR as your future - more than catheters and guidewires (30 min)

Ruben Eduardo Pacios Blanco; Madrid / Spain



# Al 4 - Al Workflow Integration

Categories: Artificial Intelligence & Machine Learning

Date: July 13, 2022 | 14:00 - 15:00 CEST

**Moderator:** 

Elad Walach; Tel Aviv / Israel

Introduction (3 min)

Elad Walach; Tel Aviv / Israel

Panel Discussion (57 min)

Sean Harry Benson; Amsterdam / Netherlands Henry Christian Woodruff; Maastricht / Netherlands

Tim Leiner; Rochester / United States Damien Galanaud; Paris / France

Bram Van Ginneken; Nijmegen / Netherlands



# EU 5 - European consensus on gonad and patient shielding: the GAPS group - can we come to our consensus?

Categories: EuroSafe Imaging/Radiation Protection, Paediatric Imaging, Physics in Medical Imaging, Professional Issues,

Radiographers

ETC Level: LEVEL II

Date: July 13, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

**Moderator:** 

Paddy Gilligan; Dublin / Ireland

Chairperson's introduction (5 min)

Paddy Gilligan; Dublin / Ireland

**Current practice in Europe** (7 min)

Marta Sans Merce; Geneva / Switzerland

The GAPS statement (12 min)

Peter Hiles; Rhyl / United Kingdom

Current European practice of shielding in paediatric radiology (12 min)

Claudio Granata; Trieste / Italy

The role of the radiographer in shielding (7 min)

Shane J Foley; Dublin / Ireland

Shielding: the patient's viewpoint (7 min)

Erik Briers; Brussels / Belgium

Panel discussion: Patient shielding: can we come to our consensus? (10 min)



# RPS 510 - Musculoskeletal imaging of the lower limbs

Categories: EuroSafe Imaging/Radiation Protection, General Radiology, Imaging Methods, Musculoskeletal

Date: July 13, 2022 | 15:00 - 16:00 CEST

**CME Credits:** 1

#### **Moderator:**

Ihsan Şebnem Sebnem Örgüç; Manisa / Turkey

Basic and advanced metal-artifact reduction techniques at ultra-high field 7 tesla MRI: phantom study investigating feasibility and efficacy (8 min)

Christoph Germann; Zurich / Switzerland

Three-dimensional analysis for quantification of knee joint space width with weight-bearing CT: comparison with non-weight-bearing CT and weight-bearing radiography (8 min)

Benjamin Fritz; Zurich / Switzerland

Femoral version measurement in slipped capital femoral epiphysis patients using MRI with T1 VIBE DIXON to detect femoral retroversion (8 min)

Till Dominic Lerch; Bern / Switzerland

Prognostic value of whole-body low-dose CT (WBLDCT) in multiple myeloma (8 min)

Teresa Paola Giandola; Monza / Italy

Impact of iterative metal artifact reduction on artifact burden and diagnostic image quality in the setting of external fixation for complex lower extremity fractures (8 min)

Haidara Almansour; Tübingen / Germany

Magnetic resonance imaging of the lower limbs in suspected Idiopathic Inflammatory Myopathy (IIM) patients (8 min) Laura Ludovica Gramegna; Bologna / Italy

Muscle imaging beyond morphology: chemical exchange saturation transfer imaging of lactate (8 min)

Daniel B. Benjamin Abrar; Düsseldorf / Germany



# Meets 5 - Collaborative radiographer research: preserving radiographer's history and evolving radiation therapy professional role in the United States

Categories: Management/Leadership, Radiographers, Research

Date: July 13, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

#### **Moderators:**

Haakon H. Hjemly; Sorumsand / Norway Kristi Moore; Vaughan / United States Efthimios M. Agadakos; Athens / Greece

#### Introduction (10 min)

Donna Enid Newman; Fargo / United States Kristi Moore; Vaughan / United States

The ASRT museum and archives: preserving the history of radiographers in the United States (15 min)

Salvatore Martino; Albuquerque / United States

Supporting radiographers' research efforts in the USA and internationally (15 min)

Kristi Moore; Vaughan / United States

The evolving role of the radiation therapist in the United States (15 min)

Steven Hardy; Albuquerque / United States

Panel discussion: Evolving roles in medical imaging and how to support national and international radiographer research efforts (5 min)



# OF 5a - The relevance of the ESR Quality, Safety and Standards Committee (QSSC) in radiology practice

Categories: EuroSafe Imaging/Radiation Protection, Multidisciplinary, Professional Issues

ETC Level: LEVEL III

Date: July 13, 2022 | 15:00 - 16:00 CEST

**CME Credits:** 1

#### **Moderator:**

Nuria Bargallo I Alabart; Barcelona / Spain

#### **Audits and Standards Subcommittee** (10 min)

David Howlett; Eastbourne / United Kingdom

#### eHealth and Informatics Subcommittee (10 min)

Elmar Kotter; Freiburg / Germany

#### **Ultrasound Subcommittee** (10 min)

Paolo Ricci; Roma / Italy

#### **Radiation Protection Subcommittee** (10 min)

Franz Kainberger; Vienna / Austria

Panel discussion: The impact of the QSSC activities in our clinical practice: what is next? (20 min)



# OF 5b - New directions in preclinical molecular imaging

Categories: Hybrid Imaging, Imaging Methods, Molecular Imaging, Research, Translational Imaging

ETC Level: LEVEL II

Date: July 13, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

**Moderator:** 

Silvio Aime; Torino / Italy

Chairperson's introduction (5 min)

Silvio Aime; Torino / Italy

Role of intracellular water lifetime as a tumour biomarker detectable by "in vivo" fast-field cycling relaxometry (12 min)

Simonetta Geninatti Geninatti; Torino / Italy

The multiple dimensions of state-of-the-art optoacoustic imaging (30 min)

Vasilis Ntziachristos; Munich / Germany

**EIBIR activities and upcoming funding opportunities** (5 min)

Katharina Krischak; Austria

**Discussion** (8 min)





# OF 5Y - Career paths: clinical radiology

Categories: Education, General Radiology, Professional Issues, Students

**ETC Level:** ALL LEVELS

Date: July 13, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

**Moderator:** 

Minerva Becker; Geneva / Switzerland

Impact of the radiologist on clinical decision making (10 min)

Minerva Becker; Geneva / Switzerland

Clinical radiology in a busy ultrasound department (10 min)

Demosthenes Cokkinos; Athens / Greece

A busy paediatric ultrasound unit (10 min)

Méryle Laurent; Genève / Switzerland

Radiologist's role in the acute emergency (AE) department (10 min)

Maeke Johanna Scheerder; Amsterdam / Netherlands

Discussion (20 min)



# RC 502 - Pros and Cons: Intermediate risk screening should be done with breast MRI and not with contrast-enhanced mammography

Categories: Breast, Imaging Methods, Oncologic Imaging, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 15:00 - 16:00 CEST

**CME Credits:** 1

#### **Moderator:**

Thomas H. Helbich; Vienna / Austria

#### Chairperson's introduction (5 min)

Thomas H. Helbich; Vienna / Austria

**PRO** (15 min)

Ritse Maarten Mann; Nijmegen / Netherlands

**CON** (15 min)

MarcB.I. Lobbes; Maastricht / Netherlands

Panel discussion: Will we need to use contrast agents in screening? (25 min)



# RC 505 - The 3 laws of robotics applied to artificial intelligence (AI) in radiology

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Management/Leadership, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

**Moderator:** 

Federica Zanca; Leuven / Belgium

Chairperson's introduction (5 min)

Federica Zanca; Leuven / Belgium

 $\textbf{Al may not injure a human being or, through inaction, allow a human being to come to harm (15 \min)$ 

Andre Dekker; Maastricht / Netherlands

Al must obey the orders given it by human beings except where such orders would conflict with the First Law (15 min)

Gaspard D'Assignies; Nantes / France

 $\textbf{Al must protect its own existence as long as such protection does not conflict with the First or Second Laws} \ (15 \ \text{min})$ 

Jonas Teuwen; Amsterdam / Netherlands

Panel discussion: Al may not harm humanity, or, by inaction, allow humanity to come to harm (10 min)



### RC 512 - Polytrauma management

Categories: Contrast Media, Emergency Imaging, Imaging Methods, Paediatric Imaging, Ultrasound

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

**Moderator:** 

Giulia Perucca; London / United Kingdom

**Chairperson's introduction** (5 min) Giulia Perucca; London / United Kingdom

**CT in paediatric polytrauma** (15 min) Maria Raissaki; HERAKLION / Greece

The role of contrast-enhanced ultrasound (CEUS) in paediatric polytrauma management (15  $\min$ )

Michele Galluzzo; Rome / Italy

How traumatic injuries differ in children compared to adults (15 min)

Ola Kvist; Stockholm / Sweden

 $\textbf{Panel discussion: The role of paediatric radiologists in polytrauma management} \ (10 \ \text{min})$ 



### RC 516 - Ovarian cancer: where are we now?

Categories: Artificial Intelligence & Machine Learning, Genitourinary, Molecular Imaging, Nuclear Medicine, Oncologic Imaging

ETC Level: LEVEL II

Date: July 13, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

**Moderator:** 

Rosemarie Forstner; Salzburg / Austria

**Chairperson's introduction** (5 min) Rosemarie Forstner; Salzburg / Austria

Radiologic impact on surgery management in ovarian cancer (15 min)

Stefania Rizzo; Lugano / Switzerland

FDG-PET in ovarian cancer (15 min)

Alberto Hebert Vargas; New York / United States

Radiomics promises in ovarian cancer management (15 min)

Evis Sala; Rome / Italy

Panel discussion: What is the future of imaging ovarian cancer? (10 min)



# RC 503 - Cardiac CT for the non-cardiac radiologist: why every radiologist should be cardiac capable

Categories: Cardiac, Contrast Media, Education, General Radiology, Imaging Methods

ETC Level: LEVEL I

Date: July 13, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

#### **Moderator:**

Iva Žuža; Rijeka/Kostrena / Croatia

#### Chairperson's introduction (5 min)

Iva Žuža; Rijeka/Kostrena / Croatia

#### Current guidelines and implications for radiology practice (15 min)

Katarzyna Gruszczyńska; Katowice / Poland

#### Technical requirements and procedural practice (15 min)

Maja Pirnat; Maribor / Slovenia

#### Image analysis: how to interpret cardiac CT and what is important (15 min)

Firdaus A. A. Mohamed Hoesein; Utrecht / Netherlands

Panel discussion: Will this become a routine imaging investigation that every radiologist can do? (10 min)





# RPS 513 - Planar radiology (radiography, mammography, fluoroscopy and interventional)

Date: July 13, 2022 | 15:00 - 16:00 CEST

**Moderator:** 

Osvaldo Rampado; Turin / Italy

Detection and diagnosis of pulmonary emphysema in COPD-patients using x-ray dark-field chest radiography (8 min)

Theresa Urban; Garching / Germany

The potential win of including the patient size in large scale outlier analysis for chest radiography (8 min)

Niki Fitousi; Leuven / Belgium

Dynamic phantom in fluoroscopy for high and low contrast assessment (8 min)

Raffaele Villa; Monza / Italy

Helping to know personal occupational doses to improve the interventional practices (8 min)

Typical diagnostic reference levels assessment for cardiologic, interventional radiology and neuroradiology procedures using a radiation dose tracking system (8 min)

Paola E. Colombo; Milano / Italy

Diagnostic performance and organ dose evaluation in radiological diagnosis and follow-up of Ollier enchondromatosis paediatric patients: a phantom study (8 min)

Anna Piai; Cordignano / Italy

Synthetic mammography detection performance evaluation for different vendors using an anthropomorphic model observer and 3D structured phantom (8 min)

Liesbeth Vancoillie; Leuven / Belgium



#### RPS 511 - The developing brain

Categories: Imaging Methods, Neuro, Paediatric Imaging

Date: July 13, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

**Moderator:** 

Zoran Rumboldt; Rovinj-Rovigno / Croatia

Quantitative in utero fMRI assessment of functional asymmetries in the developing human brain (8 min)

Athena Taymourtash; Vienna / Austria

Pilot study on brain ASL perfusion in newborns with HIE after hypothermia: a comparison between two different anesthesiologic drugs (8 min)

Davide Del Roscio; Siena / Italy

The transient zones of human fetal telencephalon wall: 3T MR intensities and thicknesses (8 min)

Ivana Pogledic; Wien / Austria

Evaluation of sulcal developmental asymmetry in fetal cerebral isolated ventricolomegalia by fetal magnetic resonance imaging and post-delivery outcomes (8 min)

Saeid Esmaeilian; Shiraz / Iran

GABA-concentration in posterior cingulate cortex increases after acute paediatric concussion (8 min)

Andrei Manzhurtsev; Moscow / Russia

Synthetic MRI-based fast gray matter acquisition T1 inversion recovery (FGATIR) contrasts identify neonatal brainstem pathways in vivo (8 min)

Victor Schmidbauer; Vienna / Austria

Motion correction and volumetric reconstruction for fetal fMRI (8 min)

Daniel Sobotka; Vienna / Austria



#### RPS 504 - Cardiovascular disease in chest imaging

Categories: Cardiac, Chest, EuroSafe Imaging/Radiation Protection, Imaging Methods

Date: July 13, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

#### **Moderator:**

Monika Radikė; Liverpool / United Kingdom

Ultra-high pitched tin-filtered CT pulmonary angiography in radiation dose reduction for pulmonary embolism investigations in young females (8 min)

Saad Rehan; Clayton / Australia

Clinical importance of CT lung parenchymal appearances in chronic thromboembolic pulmonary hypertension: a retrospective cohort study (8 min)

Lojain Faisla Abdulaal; Sheffield / United Kingdom

CT assessment of bronchial arteries in predicting the development of chronic thromboembolic disease (CTED) after acute pulmonary embolism (8 min)

Andrey Uchevatkin; Moscow / Russia

Imaging in the detection of pulmonary emboli: are we minimising radiation dose? (8 min)

Priyanka Singhal; Bristol / United Kingdom

High rate of identification of ruptured mitral valve prolapse on non-ECG-gated chest CT (8 min)

Minji Son; Seoul / Korea, Republic of

Atrial size ratio in computed tomography pulmonary angiography as a prognostic factor in patients with acute pulmonary thromboembolism (8 min)

Srinivas Maskal Revanna; Bangalore / India

Non-invasive detection of severe PH in lung disease using magnetic resonance imaging (8 min)

Dheyaa Dhahir Farhan Alkhanfar; Sheffield / United Kingdom



# RPS 501 - The role of CT imaging in primary liver malignancies

Categories: Abdominal Viscera, Imaging Methods, Oncologic Imaging, Research

Date: July 13, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

#### **Moderator:**

Giuseppe Brancatelli; Palermo / Italy

Diagnostic performance of LI-RADS v2018 and EASL v2018 for hepatocellular carcinoma on dual-layer spectral detector CT (8 min)

Wu Zhang; Guangzhou / China

Diagnostic performance of LI-RADS for HCC after the auxiliary features replaced the threshold growth (8 min)

Rong Lu; Tianjin / China

Imaging features of histological subtypes of hepatocellular carcinoma: implication for the LI-RADS (8 min)

Roberto Cannella; Palermo / Italy

Predicting symptomatic post-hepatectomy liver failure in patients with hepatocellular carcinoma: development and validation of a preoperative nomogram (8 min)

Haiyi Long; Guangzhou / China

Preoperative CT-body composition in patients with perihilar cholangiocarcinoma: specific body composition types in correlation to perioperative morbidity and outcome (8 min)

Laura Katharina Segger; Berlin / Germany

CT features of mixed primary liver cancers with a special focus on the two different histological subtypes (8 min)

Anna Pecorelli; Bologna / Italy



# RPS 515 - Vascular imaging: miscellaneous

Categories: Vascular

Date: July 13, 2022 | 15:00 - 16:00 CEST

**CME Credits:** 1

**Moderator:** 

Thomas Rodt; Lüneburg / Germany

Comparison of true-non-contrast and virtual-non-contrast phases derived from arterial and delayed phases of fast-kVp switching dual-energy CT in patients after EVAR (8 min)

Wojciech Kazimierczak; Bydgoszcz / Poland

Photon Counting CT angiography of the head and neck: image quality assessment of polyenergetic and virtual monoenergetic reconstructions (8  $\min$ )

Arwed E Michael; Minden / Germany

A potential role of venous congestion in COVID-19-related pulmonary embolism distribution (8 min)

David Christian Rotzinger; Lausanne / Switzerland

Simulating the impact of section thickness on automated measurements of pulmonary vascular volume on thin-slice, volumetric CT (8 min)

Benjamin R. Lavon; Kontich / Belgium

Evaluation of MR biomarkers for advanced classification and therapy monitoring of patients with venous malformation

(8 min)

Fabian Haupt; Bern / Switzerland

Clinical application of high-frame rate vector flow imaging technology in evaluating hemodynamic changes of moderate and severe carotid stenosis (8 min)

Wenping Wang; Shanghai / China

Reliability of Tomographic 3D Ultrasound in measuring carotid plaque volume (8 min)

Adel Ahmad Alzahrani; London / United Kingdom



#### **RPS 506 - Hybrid imaging**

Categories: Cardiac, Hybrid Imaging, Imaging Methods, Molecular Imaging, Nuclear Medicine, Oncologic Imaging

Date: July 13, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

#### **Moderator:**

Jirí Ferda; Plzen / Czechia

Initial nodal staging in newly diagnosed breast cancer: comparability between whole body MRI and [18F]-FDG PET/MRI

(8 min)

Bano Loai Alsaleh; Manama / Bahrain

Performance of whole-body [18F]-FDG-PET/MRI in lymphoma patients: a single-centre study (8 min)

Bano Loai Alsaleh; Manama / Bahrain

Convolutional neural network-based analysis of PSMA PET/CT for predicting PSA-based response to 177Lu-PSMA radioligand therapy in mCRPC patients (8 min)

Thomas Geyer; Munich / Germany

Quantification of coronary artery atherosclerotic burden and muscle mass: comparison of two software programs (8

Carmela Nappi; Naples / Italy

The diagnosis of b-thalassemia in an early medieval archaeological context: the contribution of radiology (8 min)

Amalia Lupi; Padova / Italy



# RPS 503 - MR imaging of myocardial scar

Categories: Cardiac, Contrast Media, Hybrid Imaging

Date: July 13, 2022 | 15:00 - 16:00 CEST

**CME Credits:** 1

#### **Moderator:**

Karl-Friedrich Kreitner; Mainz / Germany

Histopathological validation of semi-automated myocardial scar quantification techniques for dark-blood LGE MRI (8 min)

Hedwig M. J. M. Nies; Maastricht / Netherlands

Novel 3D dark-blood late gadolinium enhancement MRI for visualisation of atrial scar to guide atrial fibrillation ablation (8 min)

Geertruida Petronella Bijvoet; Maastricht / Netherlands

Role of early cardiac magnetic resonance in patients with acute myocardial infarction (8 min)

Olga Vital'evna Mochula; Tomsk / Russia

Myocardial necrosis and inflammation markers of myocardial ischaemia-reperfusion injury in patients with ST-elevation myocardial infarction (8 min)

Tatsiana Rusak; Minsk / Belarus

The role of stress T1 mapping in detecting hibernating myocardium based on swine model and pathology (8 min)

Baiyan Zhuang; Beijing / China

Native T1 mapping to detect the extent of acute ST-segment elevation myocardial infarction and viable myocardium compared to delayed gadolinium-enhanced MRI (8 min)

Yuliya Olegovna Shalaginova; Moscow / Russia

T1 Mapping in cardiac magnetic resonance in patients with premature ventricular complexes (8 min)

Ilenia Notarangelo; Manfredonia / Italy



### **RPS 507 - Advances in Gynaecologic Imaging**

Categories: Genitourinary

**Date:** July 13, 2022 | 15:00 - 16:00 CEST

**CME Credits:** 1

**Moderator:** 

Nina Pötsch; Wien / Austria

Diagnostic performance of contrast-enhanced ultrasound with Sonazoid in endometrial carcinoma: a preliminary and multicentre clinical study from China (8 min)

Li Xin; Beijing / China

Repeatability and reproducibility of quantitative cervical strain elastography (E-Cervix) in pregnancy (8 min)

Jakub Mlodawski; Kielce / Poland

Serial measurement of anterior and posterior uterocervical angles as a predicting tool for spontaneous preterm birth

(8 min)

Zahra Mahboubi; Tehran / Iran

Diagnostic value of MR for placenta accreta spectrum disorders (8 min)

Radina Pavlinova Radeva; Sofia / Bulgaria

Characteristics of unicornuate uterus subtype on MRI and assessment of patient outcomes: an 11-year retrospective

study (8 min)

Geetanjali Kakar; London / United Kingdom

Polycystic ovary syndrome in adolescent girls: role of MRI in diagnosis and comparison of its utility with ultrasonography: analytical cross-sectional study (8 min)

Shreeya Anil Tiwari; Nagpur / India

Percutaneous nephrostomy during pregnancy: experiences from a tertiary centre (8 min)

Frances Hughes; SHEFFIELD / United Kingdom





#### **RPS 509 - Therapeutic embolotherapy**

Categories: Abdominal Viscera, Interventional Radiology, Multidisciplinary, Vascular

Date: July 13, 2022 | 15:00 - 16:00 CEST

**CME Credits:** 1

**Moderator:** 

Geert Maleux; Tienen / Belgium

 $\textbf{Splenic artery steal syndrome in patients with orthotopic liver transplant: where to embolise the splenic artery? (8 \, min)}$ 

Florian Nima Nima Fleckenstein; Berlin / Germany

Aneurysmal bone cysts treatment: curettage versus transarterial embolisation in the treatment of 320 patients (8 min)

Claudia Martella; Bologna / Italy

Management of pseudo-aneurysms in splenic trauma (8 min)

Sarah Batting; London / United Kingdom

Arterioportal fistulas in pediatric patients: single-centre experience with interventional radiological versus conservative management and clinical outcomes (8 min)

Francesco Saverio Carbone; Bergamo / Italy

Pulmonary artery embolisation in the management of hemoptysis related to lung tumours (8 min)

Amandine Claudinot; Caen / France

Retrospective analysis of the outcome of angiographic embolisation of peptic ulcers (8 min)

Charlotte Vanhoenacker; Kessel-Lo / Belgium

Pseudoaneurysm development: incidence and predisposing factors in a high-volume cardiovascular centre (8 min)

Hunor Sandor Sarkadi; Budapest / Hungary



# **CUBE 5 - Peripheral emergencies**

**Categories:** Interventional Radiology **Date:** July 13, 2022 | 15:30 - 16:00 CEST

CME Credits: 0.5

**Peripheral emergencies** (30 min) Adrián Picado Bermúdez; Valencia / Spain



# RC 607 - Pros and Cons: Contrast-medium administration for prostate MRI can be abandoned

Categories: Contrast Media, Genitourinary, Oncologic Imaging, Physics in Medical Imaging, Professional Issues

ETC Level: LEVEL II

Date: July 13, 2022 | 16:30 - 17:30 CEST

**CME Credits:** 1

**Moderator:** 

Geert M. Villeirs; Gent / Belgium

**Chairperson's introduction** (5 min)

Geert M. Villeirs; Gent / Belgium

**PRO** (15 min)

Patrick Asbach; Berlin / Germany

**CON** (15 min)

Jelle O. Barentsz; Nijmegen / Netherlands

Panel discussion: Will biparamteric MRI replace multiparametric MRI in the near future? (25 min)



# RPS 605a - Artificial intelligence (AI) in oncology

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Oncologic Imaging

Date: July 13, 2022 | 16:30 - 17:30 CEST

**CME Credits:** 1

**Moderator:** 

Melvin D'Anastasi; Mosta / Malta

CT radiomics for malignancy prediction of renal cysts (8 min)

Zohaib Salahuddin; Maastricht / Netherlands

Prospective post-marketing surveillance of AI for breast cancer screening in clinical practice (8 min)

Danalyn Byng; Berlin / Germany

A practical deep learning model in differentiating pneumonia-type lung carcinoma from pneumonia on CT Images: ResNet added with attention mechanism (8 min)

Xiaojie Luo; Beijing / China

Artificial intelligence may lead to unexpected changes in the balance of benefits and harms in lung cancer screening (8

min)

Victor Gombolevskiy; Moscow / Russia

Transferability and added benefit between three different diffusion sequences in prostate MRI deep learning for detection of significant prostate cancer (8 min)

Nils Bastian Netzer; Heidelberg / Germany

Minimally interactive AI-based segmentation of lymph nodes and soft tissue lesions in follow-up CT (8 min)

Alessa Hering; Lübeck / Germany

Liver lesions follow-up changes analysis in CECT by deep learning classification: a phantom study (8 min)

Jacob Sosna; Jerusalem / Israel



## RPS 610 - Advances in imaging upper extremity

Categories: EuroSafe Imaging/Radiation Protection, Imaging Methods, Musculoskeletal

Date: July 13, 2022 | 16:30 - 17:30 CEST

**CME Credits:** 1

**Moderator:** 

Ilze Engele; Riga / Latvia

Our experience of cone-beam CT in the management of acute radiocarpal injury (8 min)

Mealla Anne Barry; Dublin 7 / Ireland

Patient-specific homogenous spectral fat suppression for distal extremity MRI (8 min)

Iman Khodarahmi; New York / United States

Assessment of visibility of bone structures in the wrist using photon counting computed tomography (8 min)

Erik Tesselaar; Linkoping / Sweden

Genetic variants for hereditary haemochromatosis and risk of musculoskeletal outcomes in UK biobank (8 min)

Lucy Banfield; Perranwell Station / United Kingdom

Metal artifact reduction in computed tomography: tin filter and dual-energy technique compared to standard protocols in a cadaver study (8 min)

Carsten Hackenbroch; Blaustein / Germany

Comparison of three different positions for bilateral hands non-contrast MR angiography and perfusion (8 min)

Asako Yamamoto; Tokyo / Japan

Looking beyond the plexus: relevance of extra-plexal findings in patients with traumatic brachial plexopathy (8 min)

Vaishali Upadhyaya; Lucknow / India





## RPS 609 - Chemoembolisation and radioembolisation of the liver: new developments

Categories: Interventional Oncologic Radiology, Interventional Radiology, Multidisciplinary, Oncologic Imaging, Research

Date: July 13, 2022 | 16:30 - 17:30 CEST

CME Credits: 1

**Moderator:** 

Inger E Keussen; Stockholm / Sweden

Does the use of angio-CT vs cone-beam CT influence the radiation exposure during transarterial chemoembolisation for liver cancer? (8 min)

Marie Nowak; Lausanne / Switzerland

Hepatic changes following selective internal radiation therapy for liver metastases: a quantitative volumetric assessment at the segment level (8 min)

Karine Oung; Lausanne / Switzerland

Transradial versus transfemoral access for transarterial chemoembolisation in patients with hepatocellular carcinoma: a randomised trial (8 min)

Yingen Luo; Beijing / China

A review of MRI appearances of lipiodol in conventional TACE (cTACE) treated hepatocellular carcinomas (8 min)

Maria Rauf; Islamabad / Pakistan

Comparison between C-arm cone beam computed tomography and interventional angiography in trans-arterial chemoembolisation of hepatocellular carcinoma (8 min)

Ibrahim Ahmed Diab; Shebin Elkom / Egypt

Radiochemical feasibility of mixing of Y90 and iohexol contrast for radioembolisation therapy (8 min)

Huang Hian Liang; London / United Kingdom

Efficacy and safety of transarterial chemoembolisation with DC Beads LUMI in the treatment of HCC: experience from a tertiary centre (8 min)

Carolina Lanza; Milan / Italy



# PP 6 - Syndromes and joint injuries: cardiac, vascular, chest and musculoskeletal imaging

Categories: Cardiac, Musculoskeletal, Physics in Medical Imaging, Vascular

Date: July 13, 2022 | 16:30 - 17:30 CEST

**CME Credits:** 1

#### **Moderator:**

Stephen Harden; Southampton / United Kingdom

Monitoring Marfan syndrome and related disorders: accuracy of echocardiography and computed tomography in initial assessment and two-year follow-up (8 min)

Seyd Shnayien; Berlin / Germany

Infective endocarditis: a challenging multimodality imaging diagnosis (8 min)

Desireé Louise Souza Santos Batista; Rio de Janeiro / Brazil

Mind the heart: ECG-gated cardiac CT in the acute phase of ischaemic stroke (8 min)

Adrienne Van Randen; Amsterdam / Netherlands

Anomalous pulmonary venous returns made easy (8 min)

Desireé Louise Souza Santos Batista; Rio de Janeiro / Brazil

Acute aortic syndrome (8 min)

Ramon Barquet Mur; Barcelona / Spain

Missed fractures in AE two-point audit (8 min)

Mohamed Awad Alkareem; Manchester / United Kingdom

Multimodality imaging of midtarsal joint injuries. A biomechanic-oriented didactic approach. (8 min)

Umberto Viglino; Genoa / Italy

The utility of Shear Wave elastography to differentiate physiological joint fluid from inflammatory synovitis of the hand: a preliminary study (8 min)

Salvatore Marsico; Barcelona / Spain



# RC 612 - Learning from errors and discrepancies in paediatric radiology

Categories: Abdominal Viscera, GI Tract, Neuro, Oncologic Imaging, Paediatric Imaging

ETC Level: LEVEL I+II

Date: July 13, 2022 | 16:30 - 17:30 CEST

CME Credits: 1

**Moderator:** 

Goran Roić; Zagreb / Croatia

Chairperson's introduction (5 min)

Goran Roić; Zagreb / Croatia

Pitfalls to avoid when imaging children with tumours (15 min)

Kieran Mchugh; London / United Kingdom

Pitfalls to avoid when imaging the neonatal brain (15 min)

Maria Argyropoulou; Ioannina / Greece

Pitfalls to avoid in paediatric abdominal imaging (15 min)

Stéphanie Franchi-Abella; Le Kremlin-Bicêtre / France

Panel discussion: Should radiologists refuse to report investigations that are accompanied by blank request cards? (10 min)





## RPS 615 - Aortic imaging: morphology and beyond

Categories: Vascular

Date: July 13, 2022 | 16:30 - 17:30 CEST

CME Credits: 1

#### **Moderator:**

Hendrik Von Tengg-Kobligk; Bern / Switzerland

Dose reduction in dual-energy CT-angiography in patients after endovascular aortic repair: does omitting non-contrast and arterial phase affect the diagnostic accuracy? (8 min)

Wojciech Kazimierczak; Bydgoszcz / Poland

Clinical evaluation of non-contrast-enhanced magnetic resonance angiography in comparison to computed tomography angiography for evaluating endoleaks after abdominal endovascular aneurysm repair (8 min)

Karim Mostafa; Kiel / Germany

Sex-specific hemodynamic normal values of the aorta: a 4D MR flow study (8 min)

Mitch Ramaekers; Maastricht / Netherlands

Hemodynamic phenotyping of thoracic aortic aneurysms (8 min)

Joe Faustino Juffermans; Leiden / Netherlands

A tracking method for the reconstruction of the aorta wall from 4DMRI data (8  $\min$ )

Mocia A. Agbalessi; Quétigny / France

Medical 3D-printing of aortic templates and its appropriateness for clinical use in the interventional treatment of thoraco-abdominal aortic diseases: one centre experience (8 min)

Maciej Wojtuń; Szczecin / Poland



# RPS 614 - Radiography education updates and training considerations

Categories: Education, Professional Issues, Radiographers, Students

Date: July 13, 2022 | 16:30 - 17:30 CEST

**CME Credits:** 1

#### **Moderators:**

Carst Buissink; Groningen / Netherlands Laura Oleaga Zufiria; Barcelona / Spain

The impact of 3D virtual reality simulation upon radiation protection training for radiography and medical students (8

min

Antonina Tcacenco; Ashbourne / Ireland

An evaluation of the skills and competencies required by therapeutic radiographers from a patient's perspective (8 min)

Sonyia Lorraine McFadden; Belfast / United Kingdom

Development of a framework for radiographer online clinical education (FORCE) (8 min)

Kate Matthews; Dublin / Ireland

EURAMED rocc-n-roll (EuRnR) project findings: radiation protection education and training across Europe (8 min)

Louise A. Rainford; Dublin / Ireland

Advanced practice roles amongst therapeutic radiographers: a European survey (8 min)

Celeste Marques Oliveira; Porto / Portugal

A method to categorise an image bank before use in image interpretation research or education (8 min)

Kate Matthews; Dublin / Ireland



## RPS 603 - Advances in cardiac MR infarct imaging

Categories: Cardiac, Evidence-Based Imaging, Imaging Methods

Date: July 13, 2022 | 16:30 - 17:30 CEST

CME Credits: 1

**Moderator:** 

Iacopo Carbone; Roma / Italy

Association between cine CMR-based radiomics signature and microvascular obstruction in patients with ST-segment elevation myocardial infarction (8 min)

Yongjia Peng; Shenzhen / China

Cine MR-based radiomics to predict myocardial segments with infarction (8 min)

Jingshan Gong; Shenzhen / China

Assessment of the area-at-risk and infarcted-area by T1 mapping sequences in patients with acute myocardial infarction (8 min)

Giacomo Carlo Pambianchi; Roma / Italy

Evolution of myocardial tissue injury over a decade after ST-elevation myocardial infarction: a CMR study (8 min)

Agnes Mayr; Innsbruck / Austria

Accordance of infarct localisation between 12-lead electrocardiography and cardiac magnetic resonance imaging in ST-elevation acute myocardial infarction (8 min)

Jin-Ho Choi; Seoul / Korea, Republic of

Simplified image acquisition and detection of ischemic and non-ischemic myocardial fibrosis with fixed short inversion time magnetic resonance late gadolinium enhancement (8 min)

Malgorzata Polacin; Zürich / Switzerland

Myocardial scar detection in free-breathing Dixon-based fat- and water-separated 3D inversion recovery late-gadolinium enhancement whole heart MRI (8 min)

Alan Arthur Peters; Bern / Switzerland



## RPS 602 - Learning from mistakes: breast imaging in the pandemic

Categories: Audit, Breast, Research

Date: July 13, 2022 | 16:30 - 17:30 CEST

**CME Credits:** 1

#### **Moderator:**

Fleur Kilburn-Toppin; Cambridge / United Kingdom

Timeline for resolution of incidentally detected sonographic lymphadenopathy reactive to mRNA COVID-19 vaccination (8 min)

Yael Adler- Levy; Jerusalem / Israel

Delays in breast care due to the COVID-19 pandemic (8 min)

Kathleen Mary Capaccione; New York / United States

Prevalence and time regression hypothesis of axillary lymphadenopathy (AL) in women undergoing a breast imaging examination at different time intervals after COVID-19 vaccination (8 min)

Carola Catanese; Voghera / Italy

Impact of the COVID-19 lockdown in France on the diagnosis and staging of breast cancers in a tertiary cancer centre (8 min)

Pierre-Antoine Linck; Bordeaux / France

"Which research project should I go for?" A strategic management tool for selecting your optimal research project (8 min)

Matthias Dietzel; Erlangen / Germany

Axillary lymph node response after anti-COVID-19 vaccination: mRNA vs viral vector vaccines (8 min)

Ignacio Soriano Aguadero; Pamplona / Spain

A novel score to guide diagnostic and therapeutic path in breast cancer used during COVID-19 emergency: a valuable model applicable in the future (8 min)

Anna Abate; Lesmo / Italy



## RPS 612 - Paediatric MSK imaging: rethinking the skeletal survey - repurposing MRI

Categories: Forensic Imaging, Musculoskeletal, Paediatric Imaging

Date: July 13, 2022 | 16:30 - 17:30 CEST

**CME Credits:** 1

#### **Moderator:**

Shabnam Bhandari Grover; Greater Noida, NCR-Delhi / India

Lateral radiographs of joints in suspected physical abuse: do they add to the diagnosis? (8 min)

Riwa Meshaka; London / United Kingdom

Whole body postmortem computed tomography versus the skeletal survey: can computed tomography replace the skeletal survey? (8 min)

Rick R. Van Rijn; Amsterdam / Netherlands

MRI of the proximal tibia epiphysis for the estimation of majority: validation study from Thuringia (8 min)

Hans-Joachim Mentzel; Jena / Germany

Prevalence of cam deformities and osteoarthritis at longterm radiographic followup of patients with slipped capital femoral epiphysis (8 min)

Till Dominic Lerch; Bern / Switzerland

The clinical, biochemical and radiological features of kingella kingae osteoarticular infection in a metropolitan paediatric community (8 min)

Nicholas Robert Watson; Little Mountain / Australia

Hyperostosis in chronic recurrent multifocal osteomyelitis whole body MRI: a longitudinal case review (8 min)

Sedat Giray Kandemirli; Iowa City / United States

Value of magnetic resonance imaging for skeletal bone age assessment in healthy male adolescent soccer players (8

min)

Lajos Basten; Köln / Germany



#### **RPS 608 - Parotid gland imaging**

Categories: Artificial Intelligence & Machine Learning, Head and Neck, Imaging Methods, Oncologic Imaging, Ultrasound

Date: July 13, 2022 | 16:30 - 17:30 CEST

CME Credits: 1

#### **Moderator:**

Elizabeth Loney; Bradford / United Kingdom

**T2WI maximum tumour level histogram for differentiating parotid pleomorphic adenoma and malignant tumour** (8 min) Mengzhe Zhang; Zhengzhou / China

Automated machine learning based on intratumoural and peritumoural radiomics features may identify capsular status of parotid pleomorphic adenoma (8 min)

Shuang Li; Chengdu / China

Ultrasound assessment of focal lesions within the major salivary glands in Sjögren syndrome patients with increased lymphoproliferative risk: what is the sensitivity and specificity for lymphoma? (8 min)

Michele Lorenzon; Udine / Italy

Maximum signal intensity ratio on T1-weighted magnetic resonance images for the differential diagnosis of benign and malignant parotid tumours: a control study in two medical centres (8 min)

Zhongxiang Ding; Hangzhou / China

The role of multiparametric ultrasound and FNAC in the preoperative evaluation of parotid gland tumours: a single-centre prospective study (8 min)

Olga Guiban; Roma / Italy

The role of conventional, diffusion-weighted and dynamic contrast-enhanced MR imaging in the evaluation of parotid tumours and its value in predicting histopathological type (8 min)

Nick Janssen; Berchem / Belgium



## RC 611 - Around the brain lesions in neuroimaging

Categories: Emergency Imaging, General Radiology, Head and Neck, Neuro, Vascular

ETC Level: LEVEL I

Date: July 13, 2022 | 16:30 - 17:30 CEST

CME Credits: 1

**Moderator:** 

Pedro Vilela; Almada / Portugal

Chairperson's introduction (5 min)

Pedro Vilela; Almada / Portugal

Incidental and the most common lesions of the orbit (15 min)

Dennis M Hedderich; Munich / Germany

Incidental and the most common lesions of temporal bone (15 min)

Alexandra Borges; Lisbon / Portugal

Incidental aneurysm: when and how to follow-up (15 min)

Pedro Vilela; Almada / Portugal

Panel discussion: Extracranial lesions we must not miss in a brain exam (10 min)



## RC 617 - Pros and Cons: Artificial intelligence in the emergency department is helpful

Categories: Artificial Intelligence & Machine Learning, Emergency Imaging, Imaging Informatics, Professional Issues

ETC Level: LEVEL III

Date: July 13, 2022 | 16:30 - 17:30 CEST

CME Credits: 1

**Moderator:** 

Emanuele Neri; Pisa / Italy

Chairperson's introduction (5 min)

Emanuele Neri; Pisa / Italy

**PRO** (15 min)

Anjali Agrawal; Delhi / India

**CON** (15 min)

Elizabeth Dick; London / United Kingdom

Panel discussion: What will the impact of artificial intelligence in emergency radiology be in the near future and how can artificial intelligence improve patient triage? (25 min)



#### RC 601 - Abdominal MRI: faster and better with DWI-MRI

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Oncologic Imaging, Research

ETC Level: LEVEL ||+|||

Date: July 13, 2022 | 16:30 - 17:30 CEST

CME Credits: 1

**Moderator:** 

Dow-Mu Koh; London / United Kingdom

**Chairperson's introduction** (5 min) Dow-Mu Koh; London / United Kingdom

Faster MRI sequences: the need for abbreviated protocols and how to do it (15 min)

Bachir Taouli; New York / United States

Diffusion weighted MRI in abdominal disease: clinical practice (15 min)

Doenja Marina Johanna Lambregts; Amsterdam / Netherlands

Whole-body MRI protocol in oncology patients: this is how to do it (15 min)

Vincent Vandecaveye; Eliksem / Belgium

Panel discussion: Is faster better, or good the enemy of great? (10 min)



# TC 6 - Screening, early detection, organisational issues, and differences between countries

Categories: Breast, Professional Issues

ETC Level: LEVEL III

Date: July 13, 2022 | 16:30 - 17:30 CEST

CME Credits: 1

#### **Moderators:**

Ruud M Pijnappel; Utrecht / Netherlands Elizabeth Morris; Sacramento / United States

## A. Screening in Europe (20 min)

Fiona J. Gilbert; Cambridge / United Kingdom

## **B. Screening in the US and how risk strategies for screening differ between the US and Europe** (20 min)

Debra Monticciolo; Temple / United States

## C. Digital breast tomosynthesis and AI in screening (20 min)

Emily F. Conant; Philadelphia / United States



## OF 6Y - Career paths: open your eyes, radiology outside the clinics

Categories: Education, Management/Leadership, Professional Issues, Students

**ETC Level:** ALL LEVELS

Date: July 13, 2022 | 16:30 - 17:30 CEST

CME Credits: 1

#### **Moderators:**

Saif Afat; Tübingen / Germany Martin Reim; Tartu / Estonia

## Chairpersons' introduction (5 min)

Saif Afat; Tübingen / Germany Martin Reim; Tartu / Estonia

## Are we lost to private equity? (10 min)

Mike Notohamiprodjo; Munich / Germany

## Co-founding a global web (collaboration) platform and clinic (10 min)

Lennart K. Blomqvist; Stockholm / Sweden

## Artificial intelligence (AI) start-up and clinic (10 min)

Tobias Lindig; Tübingen / Germany

Discussion (25 min)



## McKinsey - Real-world evidence (RWE) in life sciences: a roundtable discussion on the role of imaging

Categories: Imaging Informatics, Management/Leadership, Oncologic Imaging

**ETC Level:** ALL LEVELS

Date: July 13, 2022 | 16:30 - 17:30 CEST

**Moderator:** 

Anna Karmann; Redwood City / United States

An outside-in perspective (10 min)

Anna Karmann; Redwood City / United States

The next frontier in drug development (10 min)

Bart Vannieuwenhuyse; Netherlands

**t.b.a.** (10 min)

Michel Wouters; Amsterdam / Netherlands

Roundtable and podium discussion on the role of imaging and radiologists for RWE (30 min)

Anna Karmann; Redwood City / United States

Bart Vannieuwenhuyse; Netherlands Michel Wouters; Amsterdam / Netherlands Jacob Johannes Visser; Rotterdam / Netherlands Hans-Christoph R Becker; Stanford / United States



# **Lancet - The Lancet Commission on diagnostics**

Categories: Management/Leadership, Professional Issues

ETC Level: LEVEL I

Date: July 13, 2022 | 16:30 - 17:30 CEST

CME Credits: 1

#### **Moderators:**

Luís Donoso Bach; Barcelona / Spain

Kenneth Anthony Fleming; Oxford / United Kingdom

#### Chairpersons' introduction (5 min)

Luís Donoso Bach; Barcelona / Spain

Kenneth Anthony Fleming; Oxford / United Kingdom

#### The Lancet Commissions (8 min)

Sabine Kleinert; München / Germany

## The challenges of access and the impact on health, economy, and equity across countries (8 min)

Susan Horton; Scarborough / Canada

## Key needs: opportunities for using new technology (8 min)

Michael L Wilson; Denver,CO / United States

## The radiologist's point of view (8 min)

Kristen DeStigter; Burlington, VT / United States

#### The Lancet Commission's recommendations for an international community (8 min)

Kenneth Anthony Fleming; Oxford / United Kingdom

Panel discussion: Are we really advancing equitable access to diagnostics? (15 min)



# RPS 605b - Artificial intelligence for improvement of patient's care and radiologist's workflow

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Management/Leadership, Professional Issues

Date: July 13, 2022 | 16:30 - 17:30 CEST

**CME Credits:** 1

**Moderator:** 

Erik R. Ranschaert; Turnhout / Belgium

Quantifying operator and hardware variability in diagnostic ultrasound using principle component analysis and k-means clustering (8 min)

Calvin Zhu; Unionville / Canada

Detection of unreported clinically significant ascending aortic dilation by combination of computer vision (CV) algorithm and report processing (8 min)

Dana Stav; Tel Aviv-Yafo / Israel

Amplifying the contrast of MR images using a DL method trained on synthetic images (8 min)

Sonia Colombo Serra; Colleretto Giacosa / Italy

Designing for appropriate trust in artificial intelligence: making machine learning usable for radiologists (8 min)

Rosa Verhoeven; Amersfoort / Netherlands

Natural language processing for automatic evaluation of free text answers: a pilot study based on the EDIR examination (8 min)

Fabian Stöhr; Mainz / Germany

Additional dose reduction potential of vendor-agnostic deep learning models combined with conventional iterative reconstruction methods: a phantom study (8 min)

Jisu Kim; Seongnam-si / Korea, Republic of

NAVIGATOR: an imaging biobank to precisely prevent and predict cancer, and facilitate the participation of oncologic patients to diagnosis and treatment (8 min)

Lorenzo Tumminello; Pisa / Italy





# - Opening Ceremony - ECR 2022

**Date:** July 13, 2022 | 17:45 - 19:00 CEST

## **Moderator:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands



# BUILDING BRIDGES JULY 13-17 | VIENNA

# - Highlights from the Mobile Film Crew Day 2

**Date:** July 14, 2022 | 02:15 - 02:30 CEST

**Moderator:** 

Ben Giese; Chicago / United States



# RC 704 - Kidney, skin, gastro-intestinal tract, and the lung

Categories: Abdominal Viscera, Chest, Genitourinary, GI Tract, Imaging Methods

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Lukas Ebner; Bern / Switzerland

Chairperson's introduction (5 min)

Lukas Ebner; Bern / Switzerland

Pulmonary-renal syndromes (15 min)

Cornelia M. Schaefer-Prokop; Amersfoort / Netherlands

Thoracic manifestations of systemic disorders affecting the skin (15 min)

Lukas Ebner; Bern / Switzerland

GI, liver, pancreas, and the lung (15 min)

Thomas Frauenfelder; Zurich / Switzerland

Panel discussion: Pulmonary manifestations of complex systemic syndromes (10 min)



## RPS 717 - Advances, appropriateness and training in emergency radiology

Categories: Artificial Intelligence & Machine Learning, Emergency Imaging, General Radiology, Imaging Informatics, Neuro

Date: July 14, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

#### **Moderator:**

Katarzyna Katulska; Poznań / Poland

Deep-learning based reconstruction for multiphase CT angiography: a rapid method for diagnosis and prognosis of acute ischaemic stroke (8 min)

Yu Lin; Xiamen / China

Diagnostic accuracy and analysis of an artificial intelligence algorithm for the detection of intracranial haemorrhage (8 min)

Jonas Kiefer; Erlangen / Germany

Daily prediction of polytrauma-CTs using weather data (8 min)

Martin Segeroth; Basel / Switzerland

Current abdominal x-rays practice in accident and emergency: an audit (8 min)

Winnie Tam; London / United Kingdom

Diagnostic accuracy of a fast MRI T2-sequence for the diagnosis of internal herniation after Roux-and-Y gastric bypass during pregnancy: a retrospective single centre study (8 min)

Brecht Van Berkel; Leuven / Belgium

Pulmonary embolism in patients with COVID-19 on CT: relationship with the extent of pulmonary parenchymal disease (8 min)

Maria Luisa Urbano; Lisboa / Portugal

Evaluation of a fully interactive radiology workshop using an online DICOM viewer (8 min)

Georgina Bailey; Surrey / United Kingdom





## RPS 716 - Advanced imaging in lung oncology

Categories: Chest, Hybrid Imaging, Imaging Methods, Oncologic Imaging, Translational Imaging

Date: July 14, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

**Moderator:** 

Martine Rémy-Jardin; Lille / France

Dynamic changes of CT-radiomic and systemic immune-inflammatory features predict the response to immune checkpoint inhibitors in advanced NSCLC patients (8 min)

Gianluca Milanese; Parma / Italy

Evaluation of differential response in patients with metastatic lung cancer treated with immune checkpoint inhibitors: a pilot study (8 min)

Andreu Antolín Redondo; Barcelona / Spain

Comparison of performance by whole-body MRI, PET/MRI and PET/CT and conventional staging methods for TNM and VALSG staging of small cell carcinoma patients (8 min)

Yoshiharu Ohno; Toyoake / Japan

First experience of SPECT-CT with the radiopharmaceutical Thallium-199 chloride in diagnosis and assessment of the metastatic spread of lung cancer (8 min)

Wladimir Yurievich Ussov; Tomsk / Russia

To differentiate pulmonary sclerosing pneumocytoma from atypical lung cancer based-on contrast-enhanced CT: a radiomic analysis (8 min)

Lei Wang; Nanchang / China

Differentiation of benign lung nodules and lung metastases: a radiomics approach in a large cancer patient cohort (8 min)

Simon Lennartz; Köln / Germany

Targeted therapy of non-small cell lung cancer and liver cancer: functional nanocarriers for the delivery of cisplatin and tissue factor pathway inhibitor-2 (8 min)

Ma Ming Zhong; Lanzhou / China



## RPS 705 - Artificial intelligence performance evaluation and new AI methods

Categories: Imaging Informatics

Date: July 14, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

#### **Moderator:**

Jacob Johannes Visser; Rotterdam / Netherlands

The evolution of uncertainty "hedging" expressions following the introduction of structured reporting (8 min)

Tobias Heye; Basel / Switzerland

Diagnostic imaging availability for non-COVID population during COVID-19 pandemic (8 min)

Valentina Opancina; Kragujevac / Serbia

Radiology through immersive virtual reality: diagnostic accuracy for 3D CT renderings of basilar skull fractures (8 min)

José Cruz Rodríguez Domínguez; Monterrey / Mexico

Novel tool for asynchronous communication between radiologist and radiologic technologist: a viable replacement of interruptive phone calls? (8 min)

K.F.M. Hergaarden; Leiden / Netherlands

The role of teleradiology during COVID-19 outbreak: Saudi perspectives (8 min)

Shrooq Al Dahery; Jeddah / Saudi Arabia

Evaluation of image performance in deep learning reconstruction (increase in spatial resolution and image contrast) (8

min)

Katsumi Tsujioka; Toyota-City Aichi / Japan

Deep learning based co-registration QC of MRI (8 min)

Yiheng Li; Santa Clara / United States





## RPS 712 - Imaging children from head to toe

Categories: Head and Neck, Musculoskeletal, Neuro, Paediatric Imaging

Date: July 14, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

#### **Moderator:**

Maria Argyropoulou; Ioannina / Greece

Imaging cytoarchitectural changes within focal cortical dysplasia using diffusion tensor imaging (8 min)

Antonio Giulio Gennari; Zurich / Italy

Diagnostic value of MRI in herpetic encephalitis in children (8 min)

Vladislav Voitenkov; Saint-Petersburg / Russia

Mild central canal dilatation after spinal concussion in children: a new finding in SCIWORA spectrum (8 min)

Carmen Bodlak; Valencia / Spain

Sonographic image of major salivary glands in children with juvenile Sjögren's syndrome: beyond "black spots" (8 min)

Dominik Świętoń; Gdańsk / Poland

An update on imaging of musculoskeletal paediatric infections (8 min)

Vitor Tavares Paula; São Paulo / Brazil

Role of MRI in differentiating osteomyelitis from osteonecrosis in children with sickle cell disease: a cross-sectional study from a tertiary care hospital in Riyadh, Saudi Arabia (8 min)

Latifah Ahmad Alfahad; Riyadh / Saudi Arabia

Imaging signs for granuloma annulare by epifascial mound sign, and subdermal inverse mound sign: first descriptions

(8 min)

Besiana P Bego; Graz / Austria





## **RPS 702 - New technologies in breast imaging**

Categories: Breast, Contrast Media, Imaging Methods, Ultrasound

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Matthias Dietzel; Erlangen / Germany

A 5G-based telerobotic ultrasound system for breast examination (8 min)

Tian He; Shanghai / China

Towards a disruptive innovation in breast imaging? Initial experience with a next-generation low-field MRI scanner (8 min)

Matthias Dietzel; Erlangen / Germany

Quantification of contrast enhancement of breast cancer in direct converting, photon-counting spiral breast CT: immunohistochemical subtypes and grading (8 min)

Sabine Ohlmeyer; Erlangen / Germany

MR spectroscopic fingerprinting of lipids in breast cancer: a pilot study (8 min)

Noam Nissan; Ramat Gan / Israel

SOLUS - smart optical and ultrasound diagnostics of breast cancer: US / DOT hybrid system for the characterisation of breast lesions (8 min)

Elena Venturini; Milan / Italy

Preliminary evaluation of an optical mammography system for monitoring response to neoadjuvant chemotherapy in breast cancer patients (8 min)

Carolina Santangelo; Milano / Italy

Correlation of quantitative CT-data derived from multiparametric dual-layer spectral CT-maps with molecular biomarkers in patients with invasive breast carcinomas (8 min)

Kathrin Barbara Krug; Cologne / Germany



# RPS 704 - The use of contrast for pulmonary vascular disorders

Categories: Chest, Contrast Media, EuroSafe Imaging/Radiation Protection, Hybrid Imaging, Imaging Methods

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Helmut Prosch; Vienna / Austria

The difference in pulmonary veins enhancement as a sign of pulmonary embolism on contrast-enhanced CT (8 min)

Dalal Sibira; Doha / Qatar

Contrast medium administration for chest CT: a European protocol survey (8 min)

Mette Karen Henning; Oslo / Norway

Possibilities of quantitative assessment of regional pulmonary perfusion using three-dimensional ultrafast dynamic contrast-enhanced magnetic resonance imaging: preliminary experience in 10 subjects (8 min)

Anna Zakharova; Saint Petersburg / Russia

Evaluation of iodine density maps combined with effective atomic number maps based on dual-layer spectral detector CT in the diagnosis of actue pulmonary embolism (8 min)

Fuchun Xie; Shenyang / China

Comparability of methods for assessing coronary risks by chest ultra-low dose computed tomography (ultra-LDCT) from lung cancer screening (LCS) and coronary computed tomography angiography (CCTA) (8 min)

Alexander Nikolaev; Moscow / Russia

Impact of contrast-enhancement and virtual monoenergetic image energy levels on emphysema quantification: experience with photon-counting detector CT (8 min)

Lisa Jungblut; Zürich / Switzerland



# EDiR - The most challenging EDiR cases and a guide to succeed

Categories: Education, Professional Issues, Students

ETC Level: LEVEL II

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderator:**

Laura Oleaga Zufiria; Barcelona / Spain

# **Chairperson's introduction** (5 min) Laura Oleaga Zufiria; Barcelona / Spain

Ladra Oleaga Zallila, Barcelolla , Spalli

## EDiR innovative tools (10 min)

Laura Oleaga Zufiria; Barcelona / Spain Lucian Beer; Vienna / Austria

## EDiR teaser and discussion (30 min)

Laura Oleaga Zufiria; Barcelona / Spain

Questions and answers (15 min)



## **RPS 711 - Spine imaging and intervention**

**Categories:** Interventional Radiology, Neuro **Date:** July 14, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

**Moderator:** 

Daniela Prayer; Vienna / Austria

Comparison of radiation exposure of AIRO intraoperative CT with C-arm fluoroscopy during posterior lumbar interbody fusion (8 min)

Brecht Van Berkel; Leuven / Belgium

Prognostic utility of anterior atlantodens interval widening on cervical spine CT for transverse atlantal ligament integrity (8 min)

Peter Fiester; Jacksonville / United States

Comprehensive evaluation of spinal structure changes contributing to foraminal stenosis: a weight-bearing MRI study (8 min)

Leonardo Pertici; L'Aquila / Italy

Craniocervical prevertebral effusion in the acute trauma setting: a common sign for anterior atlanto-occipital membrane complex injury (8 min)

Peter Fiester; Jacksonville / United States

Strong contrast stagnation of unilateral vertebral artery on black blood enhanced MR imaging predicts acute medulla infarction (8 min)

Seong Min Cho; Jeonju / Korea, Republic of

Interrelationship between craniocervical disassociation spectrum injuries and atlantoaxial instability on trauma cervical MRI exams (8 min)

Peter Fiester; Jacksonville / United States

Can machine learning predict gender and age by evaluation of the subject's lumbar vertebrae? (8 min)

Riccardo Levi; Pieve Emanuele / Italy



# RPS 703 - Cross-sectional imaging in congenital heart disease

Categories: Cardiac, Imaging Methods, Paediatric Imaging, Vascular

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Maciej Krupinski; Kraków / Poland

Accuracy of fully automated ventricular morpho-functional assessment in patients with tetralogy of fallot (8 min)

Davide Capra; Milan / Italy

Four-dimensional phase contrast MRI with accelerated dual velocity encoding in patients with complex congenital heart disease (8 min)

Laurette Kalifa; PARIS / France

Multimodal approach in diagnostics of complex anatomical variants of atrioventricular septal defect (8 min)

Yevhen Yevhenovich Tsasiuk; Киев / Ukraine

Free-breathing high resolution modified Dixon steady-state angiography with compressed sensing for the assessment of the thoracic vasculature in pediatric patients with congenital heart disease (8 min)

Narine Mesropyan; Bonn / Germany

Left and right ventricular morphology and function in children with LVNC cardiomyopathy: a case-control CMR study (8

min)

Jędrzej Sarnecki; Warsaw / Poland



## RPS 707 - Prostate cancer: will we ever be replaced by machines and urologists?

**Categories:** Artificial Intelligence & Machine Learning, Genitourinary, Interventional Oncologic Radiology, Multidisciplinary, Oncologic Imaging

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderator:**

Jurgen J. Futterer; Nijmegen / Netherlands

The first 5 targeted trans-perineal prostate biopsies diagnose the majority of PROMIS criteria cancer in patients with a Likert 4 or 5 score on mpMRI (8 min)

William Mark Stevens; Bradford / United Kingdom

Is Likert scoring of mpMRI scans for suspected prostate cancer different from PI-RADSv2.1 scoring? 5 reporters compare overall scores, number of equivocal cases and predicted biopsy cancer yields (8 min)

William Mark Stevens; Bradford / United Kingdom

In-bore robot assisted MRI guided target biopsy of the prostate: our experience (8 min)

Rogier Van Stiphout; Roermond / Netherlands

Machine learning-based multimodal data analysis for optimised treatment planning and surgical outcome prediction of prostate cancer patients (8 min)

Mahnoosh Naeimi; Mannheim / Germany

Vulnerability of radiomics machine learning models for the detection of clinically significant prostate cancer in heterogeneous MRI datasets (8 min)

Balthasar Schachtner; Munich / Germany

Convolutional neural networks for automated classification of prostate multiparametric magnetic resonance imaging based on image quality (8 min)

Emanuele Messina; Rome / Italy

A deep learning masked segmentation alternative to manual segmentation in biparametric MRI prostate cancer radiomics (8 min)

Jeroen Bleker; Groningen / Netherlands



## RPS 708 - Head and neck: miscellaneous

Categories: Head and Neck, Imaging Methods, Ultrasound

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Elizabeth Loney; Bradford / United Kingdom

Clinical and radiological picture of ROCM in post-COVID-19 patients (8 min)

Lolita Yunusova; Tashkent / Uzbekistan

 $\textbf{Comparing mucormycosis severity in COVID-19 patients and COVID-19 free patients: an imaging-based diagnosis (8) and (8) are also considered as a consistency of the contraction of t$ 

min)

Ali Motealleh; Shiraz / Iran

The incidence and imaging findings of intracranial extension of sino-nasal mucormycosis (8 min)

Sepideh Sefidbakht; Shiraz / Iran

Heritability of anatomical markers related to obstructive sleep apnea on MRI scans in twins (8 min)

Zsofia Jokkel; Budapest / Hungary

What the radiology should know about the radiological aspects of ocular ultrasound: from normal to pathological (8

min

Tressia Carole Boussa; Casablanca / Morocco

The potential role of shear wave elastography in the assessment of nodular thyroid disease (8 min)

Eszter Makai; Szeged / Hungary



#### E<sup>3</sup> 25B - Pancreatic adenocarcinoma mimickers

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Oncologic Imaging

**ETC Level:** ALL LEVELS

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Riccardo Negrelli; Verona / Italy

Autoimmune pancreatitis (30 min)

Riccardo Negrelli; Verona / Italy

Paraduodenal pancreatitis (30 min)

Giovanni Morana; Treviso / Italy



## OF 7R - The EFRS patient-centred care awards

Categories: Management/Leadership, Professional Issues, Radiographers

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Andrew England; Cork / Ireland

Shining a light on our patients: the EFRS perspective (5 min)

Shining a light on our patients: the patient perspective (5 min)

Cheryl Cruwys; Haute Vienne / France

EFRS patient-centred care award showcase: introduction (2 min)

Charlotte A. Beardmore; London / United Kingdom

Runner-up: malignant spinal cord compression pathway (15 min)

Catriona Buchan; Baildon / United Kingdom

Winner: mobile x-ray for patients with dementia (15 min)

Pica Blackburn Andersen; Kolding / Denmark

Open discussion (18 min)



# ESR Audit - Clinical audit and setting standards in radiology: the European experience

Categories: Audit, EuroSafe Imaging/Radiation Protection, Interventional Radiology, Musculoskeletal, Professional Issues

**ETC Level:** ALL LEVELS

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Roman Klöckner; Mainz / Germany

**Chairperson's introduction** (5 min) Roman Klöckner; Mainz / Germany

Uptake of EU-BSS (2013/59 Euratom) requirements in European radiology departments: results of a repeat ESR survey (10 min)

Nuria Bargallo I Alabart; Barcelona / Spain

The use of checklists and coagulation monitoring in interventional radiology: developing best practice guidance (10 min)

Roman Klöckner; Mainz / Germany

Teleradiology and home working: minimal standards and best practice (10 min)

Mustafa Nasuh Özmen; Ankara / Turkey

Radiology reporting of osteoporotic vertebral fragility fractures (VFFs): results of a UK audit and re-audit (15 min)
Abdelaziz Marzoug; Dundee / United Kingdom

Panel discussion: European clinical audit and standards development: how are we doing and where can we improve? (10 min)



# EU 7 - Enhancing radiation protection of patients in CT practices in Africa: opportunities for synergies between Africa, the IAEA and ESR

Categories: EuroSafe Imaging/Radiation Protection

ETC Level: LEVEL III

Date: July 14, 2022 | 08:00 - 09:15 CEST

CME Credits: 1

#### **Moderators:**

Guy Frija; Paris / France

Imen Bentouhami; Vienna / Austria

#### Keynote address (5 min)

Shaukat Abdulrazak; Vienna / Austria

#### The reality on the ground: an IAEA perspective (5 min)

May Abdel-Wahab; Vienna / Austria

#### IAEA efforts to promote radiation protection in Africa (5 min)

Miroslav Pinak; Vienna / Austria

#### **Overview of justification in CT practice in Mauritius** (6 min)

Ambedhkar Shantaram Naojee; Vacoas-Phoenix / Mauritius

#### Overview of justification in CT practice in Tunisia (6 min)

Chiraz Jemli Chammakhi; Tunis / Tunisia

#### Overview of justification in CT practice in Sudan (6 min)

Omyma Gaafar Ibrahim; Khartoum / Sudan

#### ESR iGuide update (6 min)

Boris Brkljačić; Zagreb / Croatia

#### Panel discussion: How synergies of efforts can enhance radiation protection of patients in Africa? (36 min)

Henry Jacton Odongo Wanga; Nairobi / Kenya Boudjema Mansouri; Algiers / Algeria Dina Husseiny Salama; Cairo / Egypt

Miriam Mikhail Lette; Wien / Austria





#### RC 701 - Non-invasive ultrasound assessment of chronic diffuse liver disease

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Multidisciplinary, Ultrasound

ETC Level: LEVEL I+II

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderators:**

Vito Cantisani; Roma / Italy Paolo Ricci; Roma / Italy

#### Chairpersons' introduction (2 min)

Vito Cantisani; Roma / Italy Paolo Ricci; Roma / Italy

#### Current concept and status of elastography for liver fibrosis (12 min)

Mustafa Seçil; Izmir / Turkey

### Diffuse liver fat infiltration: measurement with ultrasound (12 min)

Giovanna Ferraioli; Pavia / Italy

#### Non-invasive ultrasound assessment of portal hypertension (12 min)

Maija Radzina; Riga / Latvia

#### The one-stop ultrasound clinic for chronic liver disease (12 min)

Vito Cantisani; Roma / Italy

Panel discussion: Current evidence (10 min)



### RC 710 - Knee ligaments

Categories: General Radiology, Imaging Methods, Musculoskeletal

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Violeta Vasilevska Nikodinovska; Skopje / Macedonia

**Chairperson's introduction** (5 min)

Violeta Vasilevska Nikodinovska; Skopje / Macedonia

Cruciate ligament injuries and associated meniscal tears (15 min)

Patrick Omoumi; Lausanne / Switzerland

ACL injury: associated ligament injuries (15 min)

Graeme Thompson; Cape Town / South Africa

ACL repair: MRI of a normal graft and the complications (15 min)

Pieter Van Dyck; Edegem / Belgium

Panel discussion: The role of imaging in management-related decisions of ligamentous lesions of the knee joint (10 min)



# RC 711 - Common requests in neuroradiology

Categories: General Radiology, Head and Neck, Imaging Methods, Neuro

ETC Level: LEVEL I

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Jasmina Boban; Novi Sad / Serbia

Chairperson's introduction (5 min)

Jasmina Boban; Novi Sad / Serbia

Imaging of headache (15 min)

Jasmina Boban; Novi Sad / Serbia

Imaging of visual disturbance (15 min)

Zoran Rumboldt; Rovinj-Rovigno / Croatia

Imaging of vertigo (15 min)

Bernhard Schuknecht; Zürich / Switzerland

Panel discussion: When the patient's symptoms lead us in the wrong direction (10 min)



### RT 7 - Building bridges: how to build evidence in interventional oncology

Categories: Interventional Oncologic Radiology, Interventional Radiology, Multidisciplinary, Professional Issues, Research

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderators:**

Thomas K. Karl Helmberger; Munich / Germany Valérie Vilgrain; Clichy / France

#### Chairpersons' introduction (2 min)

Thomas K. Karl Helmberger; Munich / Germany Valérie Vilgrain; Clichy / France

#### How to build and perform research in interventional oncology (10 min)

Philippe L. Pereira; Heilbronn / Germany

### Panel discussion (48 min)

Philippe L. Pereira; Heilbronn / Germany Martijn Ruben Meijerink; Amsterdam / Netherlands Dirk Arnold; Hambrug / Germany



# **CUBE 6 - The aortic alphabet soup**

**Categories:** Interventional Radiology **Date:** July 14, 2022 | 09:00 - 09:30 CEST

CME Credits: 0.5

The aortic alphabet soup (30 min)

Mohammad Tariq Ali; Cambridge / United Kingdom



# **CUBE 7 - IR training and education for radiographers**

**Categories:** Education, Interventional Radiology

Date: July 14, 2022 | 09:30 - 10:00 CEST

CME Credits: 0.5

**IR training and education for radiographers** (30 min) Sonyia Lorraine McFadden; Belfast / United Kingdom



# **HD 2 - Highlights of the Day**

**Date:** July 14, 2022 | 10:15 - 10:30 CEST

### **Moderator:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands



### OF 8b - Harnessing the strengths of our National Societies

Categories: Audit, Education, Imaging Informatics, Management/Leadership, Professional Issues

ETC Level: LEVEL I+II

Date: July 14, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

#### **Moderator:**

Andrea Grace Rockall; Godalming / United Kingdom

### National Societies Audit on safety checklist (10 min)

Andrea Grace Rockall; Godalming / United Kingdom

#### Safe haven for patient information (10 min)

Evelyn Steinthaler; Vienna / Austria

#### How can we harness the power of coding? (10 min)

Marc Kaemmerer; Bochum / Germany

**Discussion** (30 min)



# **CUBE 8 - Case studies presented through quiz**

**Categories:** Interventional Radiology **Date:** July 14, 2022 | 10:30 - 11:00 CEST

CME Credits: 0.5

Quiz (30 min)

Geert Maleux; Tienen / Belgium



# SF 8 - Thoracic imaging: more than just the lungs

Categories: Chest, Imaging Methods, Musculoskeletal, Translational Imaging, Vascular

**ETC Level:** ALL LEVELS

Date: July 14, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Christian W.A. Pfirrmann; Forch / Switzerland

Airways: dynamic and functional imaging (15 min)

Vessels: acute and chronic pulmonary vascular disease (15 min)

Jonathan Dermot Dodd; Dublin / Ireland

Mediastinum: anatomy and pathology (15 min)

Gianluca Milanese; Parma / Italy

Bones and the chest wall (15 min)

ChristianW.A. Pfirrmann; Zurich / Switzerland

Panel discussion: Is there a "one-stop-shop" method for imaging the chest? (25 min)



# SA 8 - Controversies and pitfalls in imaging of the head and neck

Categories: Evidence-Based Imaging, General Radiology, Head and Neck, Imaging Methods, Oncologic Imaging

**ETC Level:** ALL LEVELS

Date: July 14, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Elizabeth Loney; Bradford / United Kingdom

**Chairperson's introduction** (5 min)

Elizabeth Loney; Bradford / United Kingdom

Controversies in oncological head and neck imaging (18 min)

Minerva Becker; Geneva / Switzerland

Controversies in non-oncological head and neck imaging (18 min)

Stephen Connor; London / United Kingdom

Pitfalls in head and neck imaging (18 min)

Davide Farina; Brescia / Italy

Incidental findings in head and neck imaging (18 min)

Alexandra Borges; Lisbon / Portugal

Panel discussion: Mistakes I've made and what I learnt from them (13 min)



# OF 8R - Top tips in oncology imaging 1: protocols for pancreas and biliary tree imaging

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Oncologic Imaging, Radiographers

Date: July 14, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

**Moderator:** 

Francis Zarb; Msida / Malta

CT pancreas: presentation radiographer (10 min)

Edel Mary Thomas; Dublin 4 / Ireland

CT pancreas: presentation radiologist (10 min)

John J Hermans; Nijmegen / Netherlands

**Discussion** (10 min)

Magnetic resonance cholangiopancreatography (MRCP): presentation radiographer (10 min)

Warda Gilani; Amsterdam / Netherlands

Magnetic resonance cholangiopancreatography (MRCP): presentation radiologist (10 min)

John J Hermans; Nijmegen / Netherlands

Discussion (10 min)



#### **RPS 809 - Visceral interventions**

Categories: Interventional Oncologic Radiology, Interventional Radiology, Multidisciplinary

Date: July 14, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

#### **Moderator:**

Stavros C. Spiliopoulos; Athens / Greece

Methotrexate infusion followed by uterine artery embolisation for the management of placental adhesive disorders (8 min)

Mohammadreza Khaleghi; Tehran / Iran

A prospective study for assessment of changes in liver stiffness, before and after endovascular interventions in patients with budd-chiari syndrome, using shear wave elastography (8 min)

Rana Vishwadeep Mall; Lucknow / India

Does PSA level affect the choice of prostate puncture methods among MRI-ultrasound fusion targeted biopsy, transrectal ultrasound systematic biopsy or the combination of both? (8 min)

Yunyun Liu; Shanghai / China

Potential of pre-interventional magnetic resonance angiography for optimisation of workflow and clinical outcome of prostatic arterial embolisation (8 min)

Leona Soraja Alizadeh; Frankfurt / Germany

Prostatic artery embolisation in benign prostate syndrome (BPS): potential of pre-interventional MR angiography for optimising workflow and clinical outcome (8 min)

Thomas J. Vogl; Frankfurt a. Main / Germany

Percutaneous transluminal angioplasty for symptomatic hepatic vein-type budd-chiari syndrome: feasibility and long-term outcomes (8 min)

Aboelyazid Elkilany; Berlin / Germany

Applications of digital variance angiography and colour-coded digital variance angiography in prostatic artery embolisation (8 min)

Leona Soraja Alizadeh; Frankfurt / Germany

Centre experience and other determinants of patient radiation exposure during prostatic artery embolisation: a retrospective study in three Scandinavian centres (8 min)

Petra Svarc; Copenhagen / Denmark



# BUILDING BRIDGES JULY 13-17 | VIENNA

Clinical and radiologic outcome after positioning of a removable percutaneous interspinous process spacer: a first experience (8 min)

Luca Jacopo Pavan; Nice / France

Computed tomography-guided transthoracic cutting needle biopsy of small pleural lesions (≤ 10 mm) (8 min) Ena Mršić; Rijeka / Croatia

In-office needle arthroscopy (IONA): may a traditionally orthopedic procedure fall in the field of interventional radiology? A pilot study to evaluate knee IONA performed by interventional radiologist (8 min)

Francesco Arrigoni; L'Aquila / Italy



# OF 8a - Artificial intelligence (AI) for image quality assessment from a clinical perspective

Categories: Artificial Intelligence & Machine Learning, EuroSafe Imaging/Radiation Protection

ETC Level: LEVEL III

Date: July 14, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

#### **Moderators:**

Christoph Hoeschen; Magdeburg / Germany

Guy Frija; Paris / France

#### Chairpersons' introduction (part 1) (10 min)

Christoph Hoeschen; Magdeburg / Germany

Guy Frija; Paris / France

#### Al-based MRI image quality assessment (10 min)

Christoph Hoeschen; Magdeburg / Germany

#### Application of machine learning techniques for image quality assessment in chest CT (10 min)

Zahra Passand; Magdeburg / Germany

#### Clinical experience of Al-based quality assessment (10 min)

Eliot Siegel; Baltimore / United States

Open forum discussion (20 min)



# BS 8 - Radiologic anatomy: breast

Categories: Breast ETC Level: LEVEL I+II

Date: July 14, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

**Moderator:** 

Thomas H. Helbich; Vienna / Austria

### Congenital and developmental abnormalities of the breast (13 min)

Sarah Vinnicombe; Cheltenham / United Kingdom

Discussion (2 min)

About ducts and lobules and how they influence breast imaging (13 min)

Alexandra Athanasiou; Athens / Greece

Discussion (2 min)

What radiologists have to teach breast surgeons about breast anatomy (13 min)

Isabelle Thomassin-Naggara; Paris / France

**Discussion** (2 min)

Functional and metabolic breast anatomy by MRI and PET (13 min)

Katja Pinker-Domenig; New York / United States

Discussion (2 min)



# E<sup>3</sup> 818 - New treatment strategies in renal cell carcinoma: a multidisciplinary approach

Categories: Genitourinary, Imaging Methods, Multidisciplinary, Oncologic Imaging, Translational Imaging

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Laure S. Fournier; Paris / France

Chairperson's introduction (5 min)

Laure S. Fournier; Paris / France

New paradigms of treatment for the curable cancer: the surgeon's view (15 min)

Marcus Cumberbatch; Sheffield / United Kingdom

New paradigms for the treatment for metastasised renal cancer: the oncologist's view (15 min)

Manuela Schmidinger; Vienna / Austria

Radiologist: new response profiles with new treatment paradigms (15 min)

Laure S. Fournier; Paris / France

Multidisciplinary tumour board: case-based panel discussion (40 min)

Laure S. Fournier; Paris / France



# E<sup>3</sup> 819 - The traumatic knee: a multidisciplinary approach

Categories: Emergency Imaging, Multidisciplinary, Musculoskeletal, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

#### **Moderator:**

Jacob Johannes Visser; Rotterdam / Netherlands

#### **Chairperson's introduction** (5 min)

Jacob Johannes Visser; Rotterdam / Netherlands

#### The knee: the orthopedic's perspective (15 min)

Tom Piscaer; Rotterdam / Netherlands

#### The knee: the radiologist's perspective (15 min)

David Hanff; Rotterdam / Netherlands

#### Case-based discussions (54 min)

Jacob Johannes Visser; Rotterdam / Netherlands

David Hanff; Rotterdam / Netherlands Tom Piscaer; Rotterdam / Netherlands



### E<sup>3</sup> 821a - Safety of radiologic contrast media: an update

Categories: Contrast Media, Emergency Imaging, General Radiology, Genitourinary, Medico-legal

ETC Level: LEVEL II

Date: July 14, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

Acute non-renal adverse reactions (45 min)

Laura Romanini; Brescia / Italy

Contrast media extravasation (45 min)

Giles Hannibal Roditi; Glasgow / United Kingdom



### E<sup>3</sup> 821b - Focal testicular lesions: challenging conditions

Categories: Emergency Imaging, Genitourinary, Imaging Methods, Oncologic Imaging, Ultrasound

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Acutely painful lesions** (45 min) Vikram Dogra; Rochester / United States

The small, incidentally-detected lesion (45 min)

Dean Huang; London / United Kingdom



# E<sup>3</sup> 821c - New directions in cardiac imaging

Categories: Cardiac, Imaging Informatics, Imaging Methods, Physics in Medical Imaging

ETC Level: LEVEL III

Date: July 14, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

Mapping techniques for advanced tissue characterisation (45 min)

Alexia Rossi; Montereale Valcellina / Italy

Cardiac arrythmia and fusion imaging (45 min)

Matilda Muca; Trieste / Italy



### E<sup>3</sup> 831 - Mediastinal tumours: abstention, medical, or surgical treatment?

Categories: Chest, Interventional Oncologic Radiology, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Thomas Frauenfelder; Zurich / Switzerland

**Chairperson's introduction** (5 min)

Thomas Frauenfelder; Zurich / Switzerland

Car-T cell therapy for the treatment of refractory B cell lymphoma: a revolution? The haematologist's view (15 min)

Sébastien Anguille; Edegem / Belgium

Diagnostic approach using CT and MRI (15 min)

Thomas Frauenfelder; Zurich / Switzerland

When and how to perform percutaneous biopsy: interventional oncology (15 min)

Eric De Kerviler; Paris / France

Multidisciplinary tumour board: case-based panel discussion (40 min)

Thomas Frauenfelder; Zurich / Switzerland



# E<sup>3</sup> 832 - Endometriosis: a multidisciplinary approach

Categories: Genitourinary, Imaging Methods, Multidisciplinary

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Rosemarie Forstner; Salzburg / Austria

**Chairperson's introduction** (5 min) Rosemarie Forstner; Salzburg / Austria

Clinical background and management of endometriosis: the surgeon (15 min)

Mohamed Mabrouk; Cambridge / United Kingdom

**Endometriosis: typical and atypical imaging findings** (20 min)

Nishat Bharwani; Surbiton / United Kingdom

Imaging of deep endometriosis: providing a GPS to surgery (20 min)

Lucia Manganaro; Rome / Italy

Multidisciplinary tumour board: case-based panel discussion (30 min)

Rosemarie Forstner; Salzburg / Austria



# IF 8 - Listen to your patients: listening to the patient to improve the quality of service to your patients

Categories: General Radiology, Management/Leadership, Professional Issues, Radiographers, Research

Date: July 14, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

#### **Moderators:**

Lorenzo E. Derchi; Genoa / Italy Jonathan McNulty; Dublin / Ireland

Introduction (5 min)

Lorenzo E. Derchi; Genoa / Italy

A case study in Mercy University Hospital, Cork, Ireland (10 min)

Adrian Brady; Cork / Ireland

The case ZOL, Genk Belgium and the patient's view on patient satisfaction (20 min)

Erik Briers; Brussels / Belgium

A radiographers view on "listening to patients" to improve the "service" to patients (10 min)

Emma Hyde; White - British / United Kingdom

Panel discussion: How can we organise a patient satisfaction survey in a radiology department? (15 min)

Dominique-Gérard Carrie; Balma / France



### RPS 801 - New developments in MR imaging of primary liver tumours

Categories: Abdominal Viscera, Contrast Media, Imaging Methods, Oncologic Imaging, Research

Date: July 14, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

András Palkó; Szeged / Hungary

Intrahepatic mass-forming cholangiocarcinoma - is there additional prognostic value in using Gd-EOB-enhanced MRI? (8

mın

Laura Katharina Segger; Berlin / Germany

Preoperatively, clinical classification of patients with intrahepatic cholangiocarcinoma may guide personalised management and improve prognosis (8 min)

Qian Li; Chengdu / China

Biomechanical phenotype of hepatocellular carcinoma based on multifrequency MR elastography: association with aggressiveness (8 min)

Jiahao Zhou; Shanghai / China

Risk score models for predicting aggressiveness in early-stage hepatocellular carcinoma: the role of gadoxetic acidenhanced magnetic resonance imaging (8 min)

Hong Wei; Chengdu / China

Gadoxetic acid-enhanced MR imaging combining with computed tomography-vascular features may improve the diagnosis of hepatocellular carcinoma (8 min)

Shan Yao; Chengdu / China

Comparative study of LI-RADS V2018 and LI-RADS V2017 on the diagnosis of hepatocellular carcinoma on Gd-EOB-DTPA enhanced MRI (8 min)

Rong Lu; Tianjin / China

Classification and regression tree analysis: improved diagnostic performance for small HCC using gadoxetate disodium-enhanced MRI (8 min)

Junhan Pan; Hangzhou / China

Diagnostic performance of LI-RADS v2018 in the differentiation of small (≤2cm) hepatocellular carcinoma from dysplastic nodules with gadobenate dimeglumine-enhanced magnetic resonance imaging (8 min)

Rong Lu; Tianjin / China



# BUILDING BRIDGES JULY 13-17 | VIENNA

The value of whole tumour region DWI texture analysis in predicting pathological grading of extrahepatic cholangiocarcinoma (8  $\min$ )

Ailian Liu; Dalian / China

Intraindividual comparison of LI-RADS category and imaging features on contrast-enhanced CT and MRI (8 min) Roberto Cannella; Palermo / Italy

Can dual-layer spectral detector CT predict microvascular invasion in hepatocellular carcinoma? A correlation with apparent diffusion coefficient of MRI (8 min)

Yongjian Zhu; Beijing / China





#### RPS 802 - Breast cancer screening and mammography

**Categories:** Breast, Oncologic Imaging **Date:** July 14, 2022 | 10:30 - 12:00 CEST

**CME Credits:** 1.5

**Moderator:** 

Matthew G. Wallis; Cambridge / United Kingdom

Artificial Intelligence-aided mammograms and detection of malignancy in dense breasts (8 min)

Sahar Abdelkhalek Mansour; Cairo / Egypt

Abbreviated breast MRI protocol with b2500 diffusion for breast cancer screening (8 min)

Thomas Lefevre; Paris / France

Worldwide mammographic breast density characterisation (8 min)

Wendelien Sanderink; Nijmegen / Netherlands

Missed cases in breast imaging, lesion type, modality and areas to improve (8 min)

Lobat Ataei Rooyani; Shiraz / Iran

Self-compression mammography in clinical practice: final results of a randomised trial compared to standard compression for patient-centred care (8 min)

Valentina lotti; Reggio Emilia / Italy

Impact of obtaining a digital breast tomosynthesis (DBT) spot compression view on assessment of equivocal DBT findings (8 min)

Florian Deleau; Bordeaux / France

Optimising the set of pairs of radiologists that double read screening mammograms (8 min)

Jessie Gommers; Nijmegen / Netherlands

Evaluation of dual spectrum digital breast tomosynthesis with iterative reconstruction for dose reduction (8 min)

Leonardus Bernardus van den Oever; Utrecht / Netherlands

Breast cancer surveillance with MRI in patients with a history of chest irradiation (8 min)

Suzanne L. van Winkel; Nijmegen / Netherlands



# BUILDING BRIDGES JULY 13-17 | VIENNA

ECR2022

Breast cancer in women under 40: still a rare entity? (8 min)

Nora Isela Moguel Molina; MEXICO / Mexico



#### RPS 811 - New techniques in neuro imaging

Categories: Contrast Media, Imaging Methods, Neuro

Date: July 14, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

#### **Moderator:**

Stefán Kristjánsson; Rejkjavik / Iceland

A quantitative imaging study of amide proton transfer-weighted imaging in diabetes-associated cognitive dysfunction of type 2 diabetes mellitus (8 min)

Wei Ju Shao; Kunming / China

Early diffusion-weighted MRI at 3Tesla detects ischaemic changes of the optic nerve in anterior ischaemic optic neuropathy (8 min)

Augustin Lecler; Paris / France

Gadolinium presence in the skin: assessment of intraepidermal nerve fiber density in rat foot skin samples after multiple administrations of Gadolinium-based contrast agents (8 min)

Hubertus Pietsch; Berlin / Germany

Image quality comparison between a novel mobile head computed tomography scanner and current generation stationary computed tomography scanners (8 min)

Henrik Andersson; Löddeköpinge / Sweden

Oxygen-challenge magnetic resonance study on the dynamic evolution of ischaemic penumbra in MCAO rats (8 min)

Zhengui Yang; Zhengzhou / China

Anatomical and functional alterations following endoscopic third ventriculostomy: the value of phase contrast and b-FFE sequences (8 min)

Dalia Mohamed El-Mossly; Cairo / Egypt

Intraoperative MRI: our experience in one single centre (8 min)

Gonzalo Moreno Zamarro; Madrid / Spain

The value of spectral quantitative parameters on dual-layer detector CT in ischaemic stroke (8 min)

Jinghua Chen; Suzhou / China

From MRI to microscopy: advances in anatomo-radiological correlations at 7T (8 min)

Aron Emmi; Padova / Italy



Evidence of white matter microstructural abnormalities in amyotrophic lateral sclerosis from mean apparent propagator MRI (8 min)

Nao-Xin Huang; Fuzhou / China

**Different approaches for aspartate approximation** (8 min)

Andrei Manzhurtsev; Moscow / Russia



#### **RPS 810 - Lower extremity**

Categories: Artificial Intelligence & Machine Learning, General Radiology, Imaging Methods, Musculoskeletal

Date: July 14, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

#### **Moderator:**

Michail Klontzas; Heraklion / Greece

Deep learning based fully automated 3D models of hip labrum based on MR arthrography are feasible and allow detection of differences in labrum volume among different hip deformities (8 min)

Florian Schmaranzer; Bern / Switzerland

Visual and quantitative assessment of hip implant-related metal artifacts at low field MRI: a comparative phantom study between 0.55T, 1.5T and 3T (8 min)

Hanns-Christian Breit; Basel / Switzerland

Ultrasound-guided periprosthetic biopsy in failed total hip arthroplasty: a novel approach to test infection in patients with dry joints (8 min)

Domenico Albano; Cefalu' / Italy

Feasibility study of the detectability of fiber rotation in muscle injuries using diffusion tensor imaging of skeletal muscle using a standardised defect model (8 min)

Miriam Frenken; Düsseldorf / Germany

Combining deep learning based landmark detection with segmentation and object detection for comprehensive leg alignment analysis (8 min)

Claudio E. von Schacky; Munich / Germany

Mass-diagnosing knee osteoarthritis with AI in an entire production year (8 min)

Anders Lenskjold; Copenhagen NV / Denmark

Radiomic features as biomarkers of patellar cartilage lesions (8 min)

Francesca Nistri; Treviso / Italy

True versus pseudo avulsion tear of superficial deltoid ligament of ankle on 3T MRI (8 min)

Harikrishna Rajendran; Ahmadi post / Kuwait

T1rho relaxation of talar cartilage with and without axial loading in situ: an indicator of early degenerative changes in individuals with chronic ankle instability? (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

ECR 2022

Matthias Jung; Freiburg / Germany





# RT 8 - Building bridges: digital transformation of (cancer) healthcare

Categories: Artificial Intelligence & Machine Learning, Education, Management/Leadership, Oncologic Imaging, Professional Issues

**ETC Level:** ALL LEVELS

Date: July 14, 2022 | 11:00 - 12:00 CEST

CME Credits: 1

#### **Moderators:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands Matti Aapro; Genolier / Switzerland

#### Chairpersons' introduction (2 min)

Regina G. H. Beets-Tan; Amsterdam / Netherlands Matti Aapro; Genolier / Switzerland

#### The EU perspective (10 min)

Saila Rinne; Luxembourg / Luxembourg

### The imaging perspective (8 min)

Elmar Kotter; Freiburg / Germany

#### The patient's perspective (6 min)

Gilliosa Spurrier-Bernard; TEILHET / France

#### The industry's perspective (6 min)

Bart Vannieuwenhuyse; Netherlands

Panel discussion: How can digital transformation of health care systems improve health care sectors and what are the obstacles that may hamper or slow down the process? (28 min)



# Al 7 - How to Al-analyze 4 mlnStudies from 100 Hospitals

Categories: Artificial Intelligence & Machine Learning

Date: July 14, 2022 | 12:00 - 13:00 CEST

**Moderator:** 

Elad Walach; Tel Aviv / Israel

Introduction (3 min)

Elad Walach; Tel Aviv / Israel

How to Al-analyze 4 mlnStudies from 100 Hospitals (42 min)

Sergey Morozov; Liège / Belgium

**Q&A** (15 min)



# IF 9a - The power of exchange: a success story, track record, and its achievement!

Categories: Breast, General Radiology, Professional Issues

Date: July 14, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

#### **Moderators:**

Michael Fuchsjäger; Graz / Austria Caroline Justich; Vienna / Austria

Introduction (2 min)

Michael Fuchsjäger; Graz / Austria

Industry view: improving patients' empowerment (10 min)

Robert Walton; Bucks / United Kingdom

The radiologist as a virtual surgeon (10 min)

Arnulf Stenzl; Tübingen / Germany

A true story of success: the radiologist as a game changer (18 min)

Michael Fuchsjäger; Graz / Austria Caroline Justich; Vienna / Austria

Panel discussion: What do patients, clinicians, and other stakeholders require from their experience within a radiology department? (20 min)



# IF 9b - Radiographers and Patients in Focus: addressing important communication challenges

**Categories:** Professional Issues, Radiographers **Date:** July 14, 2022 | 12:30 - 13:30 CEST

**CME Credits:** 1

#### **Moderators:**

Jonathan McNulty; Dublin / Ireland Erik Briers; Brussels / Belgium

Introduction (5 min)

Jonathan McNulty; Dublin / Ireland

The ionising radiation benefit-risk discussion: the patient's perspective (5 min)

Erik Briers; Brussels / Belgium

The ionising radiation benefit-risk discussion: the diagnostic radiographer's perspective (5 min)

Jonathan Loui Portelli; Msida / Malta

The ionising radiation benefit-risk discussion: the radiotherapy/radiation therapist's perspective (5 min)

Eric Johan Sundqvist; Oslo / Norway

Open disclosure: what patients want to know about their examinations? (10 min)

Cheryl Cruwys; Haute Vienne / France

The radiographer's role in open disclosure (10 min)

Louise A. Rainford; Dublin / Ireland

Panel discussion: Learning from each other: being educated by our patients and making sure they are fully informed (20 min)



# E<sup>3</sup> 25C - Solid pancreatic neoplasms

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Oncologic Imaging

ETC Level: LEVEL |+||

Date: July 14, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Mirko D'Onofrio; Verona / Italy

**Diagnosis** (30 min) Marc Zins; Paris / France

Staging (30 min)



# ESR eHealth - How artificial intelligence (AI) has changed radiology

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Management/Leadership, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Elmar Kotter; Freiburg / Germany

Chairperson's introduction (2 min)

Elmar Kotter; Freiburg / Germany

Benefits of AI challenges to clinical practice: algorithms that won and made it to the clinic (12 min)

Bram Van Ginneken; Nijmegen / Netherlands

How to integrate AI into the clinical workflow (12 min)

Tim Leiner; Rochester / United States

Al in detection and classification applied to workflow prioritisation (12 min)

Laurens Topff; Amsterdam / Netherlands

Can we now trust AI models? (12 min)

Peter M. A. Van Ooijen; Groningen / Netherlands

Panel discussion (10 min)



# E<sup>3</sup> 30B - Ventricles, volumes, and pressures

Categories: General Radiology, Imaging Methods, Neuro, Paediatric Imaging, Ultrasound

ETC Level: LEVEL I+II

Date: July 14, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Marek Sąsiadek; Wroclaw / Poland

Hydrocephalus, atrophy, or both (assessing the ventricular system, basal cisterns, and extracerebral CSF spaces) (20

min)

Miguel Palm; Maastricht / Netherlands

Intracranial hypotension (20 min)

Joanna Bladowska; Wroclaw / Poland

Idiopathic intracranial hypertension (20 min)

Robert M Robert Kwee; Heerlen / Netherlands



# OF 9a - Connecting with research in the human connectome: tips and tricks to demystify the study tools

Categories: Research
ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 12:30 - 13:30 CEST

**CME Credits:** 1

**Moderator:** 

Romain Viard; Lille / France

Chairperson's introduction (5 min)

Romain Viard; Lille / France

Connecting with research in the human connectome (25 min)

Romain Viard; Lille / France

Tips and tricks to demystify the study tools (15 min)

Loukas G Astrakas; Ioannina / Greece

Open forum discussion (15 min)



# E<sup>3</sup> 24B - Critical appraisal of MSK terminology

Categories: General Radiology, Imaging Methods, Musculoskeletal

ETC Level: LEVEL I+II

Date: July 14, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Giuseppe Guglielmi; Andria / Italy

Osteopenia (18 min)

Koenraad Verstraete; Sint-Michiels / Belgium

Periosteal reaction (18 min)

Gunnar Aström; Uppsala / Sweden

Bone marrow oedema (18 min)

Klaus Woertler; Munich / Germany

Panel discussion (6 min)



# Meets 9 - Radiological projects of the Netherlands

Categories: Abdominal Viscera, Cardiac, Education, Neuro, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

#### **Moderators:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands

Mathias Prokop; Nijmegen / Netherlands

#### Welcome and introduction (10 min)

Regina G. H. Beets-Tan; Amsterdam / Netherlands Mathias Prokop; Nijmegen / Netherlands

Liver-heart (15 min)

Hildo J. Lamb; Leiden / Netherlands

Heart-brain (15 min)

Birgitta K Velthuis; Utrecht / Netherlands

#### Radiology and nuclear medicine residency education (Corona) (15 min)

Roel Bennink; Vinkeveen / Netherlands Liesbeth Peters-Bax; Nijmegen / Netherlands

Relaxing short video (5 min)



# OF 9Y - Meet the professors: part 2

Categories: Education, General Radiology, Management/Leadership, Professional Issues, Students

**ETC Level:** ALL LEVELS

Date: July 14, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

#### **Moderator:**

Laura Katharina Segger; Berlin / Germany

#### Chairperson's introduction (5 min)

Viktoriia Pozdniakova; Oslo / Norway

#### How to choose and pursue your way in clinical and/or academic radiology? (20 min)

Bernd Hamm; Berlin / Germany Lynn Jeanette Savic; Berlin / Germany

Giovanni Federico Torsello; Berlin / Germany

# Leadership and mentorship (20 min)

Maria Argyropoulou; Ioannina / Greece

**Discussion** (15 min)



# **OF 9b - ESR Education Committee: activities and projects**

**Categories:** Education **ETC Level:** ALL LEVELS

Date: July 14, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Minerva Becker; Geneva / Switzerland

Introduction (10 min)

Minerva Becker; Geneva / Switzerland

ESR Radiology Trainees Forum (10 min)

Martin Reim; Tartu / Estonia

**ESR Undergraduate Education Subcommittee** (10 min)

Vicky Goh; London / United Kingdom

ESR eLearning Subcommittee (10 min)

Sue Barter; Bedford / United Kingdom

Discussion (20 min)



#### RC 915 - Vasculitis revisited

Categories: Abdominal Viscera, Interventional Radiology, Multidisciplinary, Neuro, Vascular

ETC Level: LEVEL I+II

Date: July 14, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Viktor Bérczi; Budapest / Hungary

Chairperson's introduction (5 min)

Viktor Bérczi; Budapest / Hungary

Pathophysiology (10 min)

Justin Mason; London / United Kingdom

Brain (10 min)

Luc Van Den Hauwe; Ekeren / Belgium

**Body manifestations of large vessel vasculitis** (10 min)

Thorsten A Bley; Würzburg / Germany

Interventional radiology implications of vasculitis (10 min)

Fabrizio Fanelli; Roma / Italy

Panel discussion: The need for multidisciplinary in diagnosis and treatment (15 min)



# RT 9 - Building bridges: the green radiology department

Categories: General Radiology, Management/Leadership, Professional Issues, Radiographers

**ETC Level:** ALL LEVELS

Date: July 14, 2022 | 12:30 - 13:30 CEST

**Moderator:** 

Adrian Brady; Cork / Ireland

Chairperson's introduction (5 min)

Adrian Brady; Cork / Ireland

Shaping the radiology department of the future: environmental sustainability (15 min)

Andrea Grace Rockall; Godalming / United Kingdom

Teaming up to define metrics and methodologies to decarbonise imaging (10 min)

Olesya Struk; Amsterdam / Netherlands

**Discussion** (30 min)

Andrea Grace Rockall; Godalming / United Kingdom

Lorenzo E. Derchi; Genoa / Italy

Daniel Pinto dos Santos; Frankfurt / Germany

Francesco Sardanelli; San Donato Milanese, Milan / Italy

Olesya Struk; Amsterdam / Netherlands



# OF 9R - Top tips in oncology imaging 2: protocols for gastrointestinal imaging

Categories: GI Tract, Imaging Methods, Oncologic Imaging, Radiographers

Date: July 14, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Francis Zarb; Msida / Malta

CT gastro-intestinal: presentation radiographer (10 min)

Dearbhla Kearney; Dublin 6 / Ireland

CT gastro-intestinal: presentation radiologist (10 min)

Kevin Cronin; Dublin / Ireland

**Discussion** (10 min)

MR rectum: presentation radiographer (10 min)

Megan Anna van der Lubbe; Amsterdam / Netherlands

MR rectum: presentation radiologist (10 min)

Max Lahaye; Amsterdam / Netherlands

Discussion (10 min)



# NH 10 - Integrated diagnostics: evidence-based therapy guidance in oncology

Categories: Molecular Imaging, Multidisciplinary, Oncologic Imaging, Research, Translational Imaging

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

#### **Moderators:**

Daniele Regge; Torino / Italy Tomris Ozben; Antalya / Turkey

#### Chairpersons' introduction (5 min)

Daniele Regge; Torino / Italy Tomris Ozben; Antalya / Turkey

#### From tumour markers to liquid biopsy (15 min)

Tomris Ozben; Antalya / Turkey

#### Imaging cancer at a cellular and sub-cellular resolution (15 min)

Reinhard Büttner; Cologne / Germany

#### Oncologic decision support systems from a radiologist's perspective (15 min)

Luis Marti-Bonmati; Valencia / Spain

#### Precision cancer therapy: making sense of it all (15 min)

Silvia Marsoni; Candiolo / Italy

Panel discussion: Sharing clinical decisions in cancer care (25 min)



# SF 10a - Normal or abnormal cardiac imaging

Categories: Cardiac, Imaging Methods, Paediatric Imaging

**ETC Level:** ALL LEVELS

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Hatem Alkadhi; Zürich / Switzerland

**Chairperson's introduction** (5 min) Hatem Alkadhi; Zürich / Switzerland

The spectrum of normal cardiac appearances in athletes (20 min)

Birgitta K Velthuis; Utrecht / Netherlands

The normal ageing heart (20 min)

Maja Hrabak Paar; Zagreb / Croatia

Adults with congenital heart disease (20 min)

Aurelio Secinaro; Rome / Italy

Panel discussion: Normal or pathological heart? That is the question (25 min)



# RC 1014 - Simulation in radiography education and training

Categories: Education, Professional Issues, Radiographers, Students

Date: July 14, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

#### **Moderators:**

Diego Catania; Milan / Italy

Laura Oleaga Zufiria; Barcelona / Spain

# Chairpersons' introduction (5 min)

Diego Catania; Milan / Italy

Laura Oleaga Zufiria; Barcelona / Spain

#### Introduction to virtual reality (VR) (10 min)

John Ryan; Dublin / Ireland

#### The use of moulage in teaching (10 min)

Naomi Shiner; Nottingham / United Kingdom

#### **Simulation in radiotherapy education** (10 min)

Jose Guilherme Couto; Msida / Malta

#### **Educational impact for radiography** (10 min)

Karen Knapp; Exeter / United Kingdom

Panel discussion: How do we know if simulation really builds knowledge, skills, and competence? (15 min)



# RC 1012 - Pros and Cons: Chest CT is indicated in children with suspected COVID-19

Categories: Chest, Imaging Methods, Paediatric Imaging, Professional Issues

ETC Level: LEVEL II

Date: July 14, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

**Moderator:** 

Paolo Toma; Roma / Italy

Chairperson's introduction (5 min)

Paolo Toma; Roma / Italy

**PRO** (15 min)

Ola Kvist; Stockholm / Sweden

**CON** (15 min)

Thomas Robert Semple; London / United Kingdom

Panel discussion: Chest CT has a prognostic role in COVID-19/MIS-C (25 min)



# RC 1008 - Pros and Cons: Minimal axial diameter is the leading criterion to perform an US-guided lymph node puncture in the neck

Categories: Head and Neck, Interventional Oncologic Radiology, Multidisciplinary, Oncologic Imaging, Ultrasound

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

**Moderator:** 

Markus Brunner; Wien / Austria

Chairperson's introduction (5 min)

Markus Brunner; Wien / Austria

**PRO** (15 min)

Pim De Graaf; Amsterdam / Netherlands

**CON** (15 min)

Gitta Madani; London / United Kingdom

Panel discussion: The leading criterion to perform an ultrasound-guided lymph node puncture in the head and neck is the minimal axial diameter, other US-criteria or criteria provided by other modalities are less relevant (25 min)



# OF 10R - Top tips in oncology imaging 3: protocols for genitourinary imaging

Categories: Abdominal Viscera, Genitourinary, Imaging Methods, Oncologic Imaging, Radiographers

Date: July 14, 2022 | 14:00 - 15:00 CEST

**Moderator:** 

Lyanne Molenaar; Amsterdam / Netherlands

CT urology: presentation radiographer (10 min)

Philomena Donohoe; Dublin / Ireland

CT urology: presentation radiologist (10 min)

Discussion (10 min)

MR prostate: presentation radiographer (10 min)

Claude Portanier Mifsud; Msida / Malta

MR prostate: presentation radiologist (10 min)

Stijn Heijmink; Amsterdam / Netherlands

**Discussion** (10 min)



# OF 10a - The era of the inevitable marriage: the radiologists and the biomedical scientist - tips and tricks to make it smooth

Categories: Artificial Intelligence & Machine Learning, General Radiology, Physics in Medical Imaging, Professional Issues

**ETC Level:** ALL LEVELS

Date: July 14, 2022 | 14:00 - 15:00 CEST

**CME Credits:** 1

#### **Moderator:**

Loukas G Astrakas; Ioannina / Greece

#### Chairperson's introduction (5 min)

Loukas G Astrakas; Ioannina / Greece

#### The era of the inevitable marriage: the radiologists and the biomedical scientist (25 min)

Maria Argyropoulou; Ioannina / Greece

#### Tips and tricks to make it smooth (15 min)

Jean-Pierre Pruvo; Lille / France

Open forum discussion (15 min)



# E<sup>3</sup> 1019f - Neuroblastoma: a multidisciplinary approach

Categories: Abdominal Viscera, Interventional Oncologic Radiology, Interventional Radiology, Multidisciplinary, Paediatric Imaging

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

#### **Moderators:**

Fernando Gomez Muñoz; Barcelona / Spain Premal Patel; London / United Kingdom

#### Chairpersons' introduction (5 min)

Fernando Gomez Muñoz; Barcelona / Spain Premal Patel; London / United Kingdom

#### Imaging of neuroblastoma: the radiologist's perspective (10 min)

Ignasi Barber; EspluguesdeLlobregat / Spain

#### Systemic treatment and radiation therapy of neuroblastoma: the oncologist's perspective (10 min)

Jaume Mora; Barcelona / Spain

#### Surgery for the management of neuroblastoma: the surgeon's perspective (10 min)

Marta P. Martín Giménez; Barcelona / Spain

#### Interventional radiology in treatment of neuroblastoma: the interventional radiologist's perspective (10 min)

Fernando Gomez Muñoz; Barcelona / Spain

#### Case-based discussions (45 min)

Fernando Gomez Muñoz; Barcelona / Spain Premal Patel; London / United Kingdom



# ESR/ESTRO - Artificial intelligence (AI): from research to clinical practice

Categories: Artificial Intelligence & Machine Learning, Management/Leadership, Physics in Medical Imaging, Translational Imaging

ETC Level: LEVEL III

Date: July 14, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

#### **Moderators:**

Lorenzo E. Derchi; Genoa / Italy Vincenzo Valentini; Rome / Italy

#### Chairpersons' introduction (5 min)

Lorenzo E. Derchi; Genoa / Italy Vincenzo Valentini; Rome / Italy

#### Radiomics and deep learning: the basics you need to know (12 min)

Nikolaos Papanikolaou; Lisbon / Portugal

#### Artificial intelligence: from research to clinics (12 min)

Vincenzo Valentini; Rome / Italy

#### Artificial intelligence: how has it changed radiation treatment planning? (12 min)

Nicole Nesvacil; Vienna / Austria

#### Al and the integration of -omics biomarkers for the prediction of response to treatment (12 min)

Evis Sala; Rome / Italy

Live Q&A (7 min)



# CUBE 9 - IR in the treatment of giant visceral aneurysms & New concepts to optimize endovascular treatment

Categories: Abdominal Viscera, Interventional Radiology

ETC Level: LEVEL I

**Date:** July 14, 2022 | 14:00 - 14:30 CEST

CME Credits: 0.5

IR in the treatment of giant visceral aneurysms (15 min)

Stavros C. Spiliopoulos; Athens / Greece

New concepts to optimize endovascular treatment (15 min)

Stavros C. Spiliopoulos; Athens / Greece



# E<sup>3</sup> 1019e - Response evaluation in breast cancer treatment: a multidisciplinary approach

Categories: Breast, Imaging Methods, Multidisciplinary, Oncologic Imaging, Ultrasound

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Paola Clauser; Vienna / Austria

Chairperson's introduction (2 min)

Paola Clauser; Vienna / Austria

Assessment after neoadjuvant chemotherapy (NAC): what the surgeon needs to know (15 min)

Isabel T. Rubio; Madrid / Spain

Ultrasound, contrast-enhanced mammography, and MRI after neoadjuvant chemotherapy: rivals or allies? (15 min)

MarcB.I. Lobbes; Maastricht / Netherlands

Early prediction of response to treatment: current evidence and future perspectives (15 min)

Heike Preibsch; Tübingen / Germany

Case based panel discussions: evaluation of breast cancer response to therapy, which is the best way? (43 min)

Paola Clauser; Vienna / Austria



# E<sup>3</sup> 1019d - The memory clinic: a multidisciplinary approach

Categories: Hybrid Imaging, Imaging Methods, Multidisciplinary, Neuro

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Meike W. Vernooij; Rotterdam / Netherlands

**Chairperson's introduction** (5 min)

Meike W. Vernooij; Rotterdam / Netherlands

A changing diagnostic paradigm of Alzheimer's disease (15 min)

Wiesje van der Flier; Amsterdam / Netherlands

The role of CT, MRI, and PET in the memory clinic (15 min)

Sven Haller; Geneve / Switzerland

Current treatment options for dementia: lessons from the neurologist (15 min)

Nick C Fox; LONDON / United Kingdom

Multidisciplinary team meeting: case-based panel discussion (40 min)

Meike W. Vernooij; Rotterdam / Netherlands



# E<sup>3</sup> 1019c - Multidisciplinary management of acute ischaemic stroke: beyond current guidelines

Categories: Emergency Imaging, Interventional Oncologic Radiology, Multidisciplinary, Neuro, Professional Issues

**ETC Level:** ALL LEVELS

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Antonin Krajina; Hradec Králové / Czechia

**Chairperson's introduction** (2 min) Antonin Krajina; Hradec Králové / Czechia

Intravenous thrombolysis prior to endovascular treatment beyond the 4.5 hour time window, the neurologist's perspective (15 min)

Georgios K. Tsivgoulis; Athens / Greece

Medium vessel occlusions; how distal should we go? The interventional radiologist's perspective (15 min)

René Chapot; Essen / Germany

Basilar artery occlusion with mild neurological deficit (NIHSS <10), the neurologist's perspective (15 min)

Patrik Michel; Lausanne / Switzerland

Multidisciplinary case-based panel discussions (43 min)

Antonin Krajina; Hradec Králové / Czechia



# E<sup>3</sup> 1019b - Breast cancer staging and monitoring with imaging: a multidisciplinary approach

Categories: Breast, Imaging Methods, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Ritse Maarten Mann; Nijmegen / Netherlands

Chairperson's introduction (5 min)

Ritse Maarten Mann; Nijmegen / Netherlands

Advanced breast cancer staging and monitoring of response to neoadjuvant therapy (15 min)

Katja Pinker-Domenig; New York / United States

Planning breast cancer surgery: what radiologists need to know (15 min)

Francesco Meani; Savosa / Switzerland

Selection and monitoring of patients for neoadjuvant systemic therapy (15 min)

Marleen Kok; Amsterdam / Netherlands

Multidisciplinary tumour board: case-based panel discussion (40 min)

Ritse Maarten Mann; Nijmegen / Netherlands



# E³ 1018 - Multimodality imaging of tumour heterogeneity in cancer treatment: a multidisciplinary approach

Categories: Molecular Imaging, Multidisciplinary, Nuclear Medicine, Oncologic Imaging, Translational Imaging

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Clemens C. Cyran; München / Germany

**Chairperson's introduction** (5 min) Clemens C. Cyran; München / Germany

The oncologist: the rationale of tumour heterogeneity in oncology (15 min)

Manuela Schmidinger; Vienna / Austria

The pathologist: pathological assessment and measures of clonal heterogeneity (15 min)

Federica Pedica; Milan / Italy

Multimodality imaging of tumour heterogeneity (15 min)

Clemens C. Cyran; München / Germany

Case-based panel discussion: Integrated biomarkers of tumour heterogeneity for guiding oncological therapy (40 min)

Clemens C. Cyran; München / Germany



# BS 10 - Abdominal viscera: imaging the pancreas

Categories: Abdominal Viscera, General Radiology, Imaging Methods

ETC Level: LEVEL II

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

#### **Moderator:**

Ioana Gabriela Lupescu; Bucharest / Romania

# Imaging pancreatitis (30 min)

Charikleia Triantopoulou; ATHENS / Greece

# Imaging pancreatic cystic lesions (30 min)

András Palkó; Szeged / Hungary

#### Imaging pancreatic solid masses (30 min)

Luis Curvo-Semedo; Coimbra / Portugal



# Al 9 - How to train Radiologists and related Professionals in Al?

Categories: Artificial Intelligence & Machine Learning

Date: July 14, 2022 | 14:00 - 15:00 CEST

**Moderator:** 

Wim Van Hecke; icometrix / Belgium

Introduction (3 min)

Wim Van Hecke; Icometrix / Belgium

Panel Discussion (57 min)

Peter M. A. Van Ooijen; Groningen / Netherlands

Pablo Naval Baudín; Barcelona / Spain

Emanuele Neri; Pisa / Italy

Merel Huisman; Nijmegen / Netherlands Nadya Pyatigorskaya; PARIS / France



# E<sup>3</sup> 1019a - Rectal cancer: a multidisciplinary approach

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

#### **Moderator:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands

#### **Chairperson's introduction** (2 min)

Regina G. H. Beets-Tan; Amsterdam / Netherlands

#### Lessons from the surgeon (15 min)

Geerard L. Beets; Amsterdam / Netherlands

#### Lessons from the radiation oncologist (15 min)

Maria Antonietta Gambacorta; Rome / Italy

#### Lessons from the radiologist: case-based discussion (58 min)

Regina G. H. Beets-Tan; Amsterdam / Netherlands



### RPS 1013 - Photon counting and dual-energy CT

Categories: Artificial Intelligence & Machine Learning, Cardiac, Oncologic Imaging, Physics in Medical Imaging

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

#### **Moderator:**

Cynthia McCollough; Rochester / United States

Phantom imaging evaluations of a prototype full-size photon counting CT system at clinical dose levels (8 min)

Xiaohui Zhan; Vernon Hills / United States

Quantum iterative reconstruction for low-contrast liver lesion detection in clinical photon-counting detector CT: Impact on noise texture and diagnostic performance (8 min)

Damien Racine; Lausanne / Switzerland

Quantitative image quality comparison between a prototype full-size photon counting CT system and conventional CT systems with energy integrating detectors (8 min)

Keiichi Nomura; Chiba, Kashiwa / Japan

Improved stent imaging & visualisation with photon counting CT: a phantom study (8 min)

Jim O Doherty; Charleston / United States

Performance evaluation of (ultra) high resolution photon-counting CT of the lungs: an anthropomorphic lung vessel phantom study (8 min)

Irene Hernandez-Giron; Leiden / Netherlands

Dose reduction in coronary artery calcium scoring using mono-energetic images from reduced tube voltage dual-source photon-counting CT data: a dynamic phantom study (8 min)

Marcel van Straten; Rotterdam / Netherlands

Comparison of image quality between spectral photon-counting CT and dual-layer CT for the evaluation of lung nodules: a phantom study (8 min)

Salim Aymeric Si-Mohamed; Bron / France

Iron quantification in dual-source dual-energy photon-counting CT with up to four energy bins (8 min)

Stefan Sawall; Heidelberg / Germany

Comparison of the virtual monoenergetic image quality obtained with two versions of deep learning image reconstruction algorithm for rapid kV-Switching Dual-Energy CT: a phantom study (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

Djamel Dabli; Nîmes / France

Comparison of virtual monoenergetic imaging between a rapid kilovoltage switching dual-Energy CT with deep-learning and four dual-Energy CTs with iterative reconstruction (8 min)

Joel Greffier; Nimes / France

Comparison between three generations of rapid kV-switching dual-energy CT systems on virtual monoenergetic images at low keV: a task-based image quality assessment on phantom data (8 min)

Joel Greffier; Nimes / France



# RPS 1002 - New artificial intelligence applications in breast imaging

Categories: Artificial Intelligence & Machine Learning, Breast

Date: July 14, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

**Moderator:** 

Valeria Romeo; Naples / Italy

Systematic analysis of changes in radiomics features during dynamic breast-MRI: creating specific biomarkers (8 min)

Anna Landsmann; Zurich / Switzerland

Evaluation of the performance of artificial intelligence (AI) after one year of use in breast cancer screening practice: is the promise being delivered? (8 min)

Esperanza Elías Cabot; CORDOBA / Spain

Training of artificial intelligence (AI) networks for identification and classification of microcalcifications in digital mammography (DM): preliminary data (8 min)

Giulia Signorelli; Milano / Italy

Pretreatment prediction of pathologic complete tumour response to neoadjuvant chemotherapy in triple-negative breast cancer patients using dynamic-contrast-enhanced MRI-based radiomics models (8 min)

Thiemo van Nijnatten; Maastricht / Netherlands

Evaluate performance of two different versions of an artificial intelligence (AI) system for predicting the risk of developing interval cancer (IC) within 6 to 24 months after negative screening exam (8 min)

Davut Can Guner; Istanbul / Turkey

Radiomics in spiral breast CT: potential of texture analysis in breast density classification (8 min)

Anna Landsmann; Zurich / Switzerland

The potential of radiomics-based features on screening mammograms in distinguishing molecular subtypes of invasive breast cancer (8 min)

Jim Peters; Nijmegen / Netherlands



#### RPS 1001b - Novelties in hepatobiliary imaging

Categories: Abdominal Viscera, Contrast Media, GI Tract, Imaging Methods, Research

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Federica Vernuccio; Padova / Italy

Is there any role for multiparametric MRI of the liver in follow-up of liver-transplant patients? (8 min)

Benjamin Henninger; Innsbruck / Austria

Golden-angle radial sparse parallel dynamic contrast enhanced MRI: automatic detection and characterisation of liver lesions using contrast agent behaviour (8 min)

Manfred Tobias Meyer; Basel / Switzerland

Quantification of hepatic steatosis with a novel attenuation imaging (ATI) ultrasound technique (QAI): preliminary findings on feasibility, reproducibility and diagnostic accuracy (8 min)

Matteo Garcovich; Rome / Italy

Virtual portal vein pressure gradient based on CFD model: a noninvasive procedure with CT angiography for the diagnosis of portal hypertension (8 min)

Shang Wan; Cheng DU / China

Prediction of hepatic decompensation in patients with primary sclerosing cholangitis using body composition model and machine learning-based combined topological and radiomics features (8 min)

Yashbir Singh; Rochester / United States

Assessment of clinical outcome in patients with portal hypertension: quantitative computed tomographic feature may serve as an effective biomarker (8 min)

Shang Wan; Cheng DU / China

Development and assessment of prognostic value and agreement of a novel MRCP-score for patients with primary sclerosing cholangitis (8 min)

Aristeidis Grigoriadis; Stockholm / Sweden

Early tumour shrinkage as a novel imaging biomarker for patients with hepatocellular carcinoma undergoing immunotherapy (8 min)

Felix Hahn; Mainz / Germany



# BUILDING BRIDGES JULY 13-17 | VIENNA

Evaluation of various methods of liver measurement in comparison to volumetric segmentation based on computed tomography (8 min)

Maciej Michał Cebula; Katowice / Poland

The role of splenic volume as imaging biomarker in patients with hepatocellular carcinoma under immunotherapy (8 min)

Felix Hahn; Mainz / Germany

Myosteatosis can predict unfavourable outcomes in advanced hepatocellular carcinoma patients treated with hepatic artery infusion chemotherapy and anti-PD-1 immunotherapy (8 min)

Xiaoping Yi; Changsha / China





#### RPS 1001a - Staging and response assessment in colorectal cancer

Categories: Contrast Media, GI Tract, Imaging Methods, Oncologic Imaging, Research

Date: July 14, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

#### **Moderator:**

Monique Maas; Amsterdam / Netherlands

Is MRI better than MSCT in the diagnosis of preoperative T and N restaging of rectal cancer after neoadjuvant chemoradiotherapy? (8 min)

Wenjuan Liu; Beijing / China

Clinical performance of diffusion-weighted imaging and texture analysis in predicting tumoral response to neoadjuvant chemoradiotherapy in rectal cancer patients (8 min)

Pratik Tripathi; Wuhan / China

Predicting response to chemoradiotherapy in rectal cancer via visual assessment on baseline staging MRI: a multicentre and multireader study (8 min)

Najim El Khababi; Amsterdam / Netherlands

Impact of MR image quality on diagnostic performance to assess response after chemoradiotherapy in rectal cancer (8 min)

Najim El Khababi; Amsterdam / Netherlands

Dual-layer detector spectral CT imaging technology in differential diagnosis of the metastatic and non-metastatic lymph nodes in patients with colorectal cancer (8 min)

Xing Wan; Shenzhen / China

Study on biological characteristics of rectal cancer based on double-layer detector spectral CT quantitative multiparameter (8 min)

Lili Wang; Lanzhou / China

Prediction of the response to neoadjuvant chemotherapy in colon cancer by CT tumour regression grading: a preliminary study (8 min)

Hwanju Je; Daegu / Korea, Republic of



#### S 10 - Best of ESR Student Abstract Submission 1

Categories: Breast, Cardiac, Chest, Education, Imaging Methods, Oncologic Imaging, Students

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Dragos Negru; Iasi / Romania

Detection of fetal intraventricular haemorrhage - importance of EPI/T2\* sequences (6 min)

Tim Dorittke; Vienna / Austria

Texture analysis of early unenhanced CT for identifying pancreatic parenchymal necrosis in acute pancreatitis (6 min)

Ran Xiao; Beijing / China

Severe Cerebral Small Vessel Disease Burden Associated With Brain Hypoperfusion At Baseline And Longitudinal Cognitive Decline (6 min)

Xiaoqian Zhang; Beijing / China

Predicting the occurrence of artifacts in the subtraction images of DCE breast MRI before starting contrast agent administration by using artificial neural network (6 min)

Badhan Kumar Das; Erlangen / Germany

Percentile-based averaging and skeletal muscle gauge improve body composition analysis: Validation at multiple vertebral levels. (6 min)

J. Peter Marquardt; Aachen / Germany

Brain Responses to Four Basic Mathematical Operations in Children 10-12 Years: An fMRI Study (6 min)

Asya Istomina; Moscow / Russia

Pre-treatment metastatic site-specific metabolic tumour volume is associated with clinical endpoints in patients with NSCLC receiving immunotherapy (6 min)

Daria Kifjak; Vienna / Austria

Radiological evaluation of breast subcutaneous tissue thickness and correlation with postoperative complications in breast reconstruction after tissue-sparing mastectomies. (6 min)

Silvia Marello; Torino / Italy

Fully Automated 3D Body Composition measurements associated with survival in Head and Neck Squamous Cell Carcinoma patients. (6 min)



Miłosz Rozynek; Krakow / Poland

Less is more: The introduction of a focused diffusion-weighted magnetic resonance imaging (DWI-MRI) protocol to evaluate patients admitted with acute stroke to Sligo University Hospital (6 min)

Meadhbh Ni Mhiochain de Grae; Thurles, Tipperary / Ireland



# RPS 1005 - Artificial intelligence (AI) in musculoskeletal imaging

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Musculoskeletal

Date: July 14, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Michail Klontzas; Heraklion / Greece

Automated bone age assessment on a multi-site US cohort: agreement between Al and expert readers (8 min)

Matthew DiFranco; Vienna / Austria

Scoliosis grading from radiographs using artificial intelligence (8 min)

Abhinav Suri; Los Angeles / United States

Automated assessment of lower limb alignment based on artificial intelligence: An independent validation study on pre- and postoperative full leg X-rays (8 min)

Felix Institut Erne; Tübingen / Germany

Added value of artificial intelligence in traumatic radiographic findings detection in emergency settings (8 min)

Alexandre Parpaleix; Paris / France

Automated analysis of implant alignment following total knee arthroplasty in long leg radiographs (8 min)

Matthew DiFranco; Vienna / Austria

Faster MR imaging with artificial intelligence: a deep learning-based approach for image reconstruction with compressed sensing for imaging of the knee (8 min)

Andra-Iza Iuga; Köln / Germany

Lumbar spine MRI: comparison of novel deep learning algorithm and conventional sequences on 1.5T (8 min)

Francesco Pucciarelli; Rome / Italy

Two-fold and three-fold acceleration of compressed sense MR imaging of the ankle using artificial intelligence (8 min)

Sarah C. Foreman; München / Germany

Automated Bilsky grading of epidural spinal cord compression on thoracic spine MRI using deep learning: initial

results. (8 min)

Desmond Lim; Singapore / Singapore



Predicting muscular dystrophy mutations using muscle fat infiltration patterns and supervised machine learning models (8 min)

Benjamín Pizarro; Santiago / Chile

**Evaluation of visual explanation for knee MRI pathology classifiers** (8 min)

Gaspard D'Assignies; Nantes / France



# IF 10 - Switching roles: the experiences and expectations of patients

Categories: Artificial Intelligence & Machine Learning, Breast, Genitourinary, Radiographers

Date: July 14, 2022 | 14:15 - 15:45 CEST

CME Credits: 1.5

#### **Moderators:**

Dominique-Gérard Carrie; Balma / France Adrian Brady; Cork / Ireland

### Presentation of the 'Patient Expectations' paper (15 min)

Cheryl Cruwys; Haute Vienne / France

#### Introduction to patient stories (5 min)

Adrian Brady; Cork / Ireland

#### Judy's story (5 min)

Judy Birch; Poole / United Kingdom

#### Adrian's story (5 min)

Adrian Brady; Cork / Ireland

#### Erik's story (5 min)

Erik Briers; Brussels / Belgium

### Cheryl's story (5 min)

Cheryl Cruwys; Haute Vienne / France

#### Dominique's story (5 min)

Dominique-Gérard Carrie; Balma / France

#### Joliene's story (5 min)

Joliene Munier; Utrecht / Netherlands

# Caroline's story (5 min)

Caroline Justich; Vienna / Austria

Panel discussion: What are the expectations of the patient and are they being met? (35 min)



ECR 2022

Charlotte A. Beardmore; London / United Kingdom



# CUBE 10 - The use of virtual reality simulation for interventional imaging radiation protection training

**Categories:** Interventional Radiology **Date:** July 14, 2022 | 14:30 - 15:00 CEST

CME Credits: 0.5

The use of virtual reality simulation for interventional imaging radiation protection training (30 min)

Louise A. Rainford; Dublin / Ireland



# **CUBE 11 - Central emergencies**

Categories: Interventional Radiology, Vascular

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 15:30 - 16:00 CEST

CME Credits: 0.5

Central emergencies (30 min)

Panagiotis Gkoutzios; London / United Kingdom



# CTiR 11 - Clinical Trials in Radiology 2

Date: July 14, 2022 | 16:00 - 17:30 CEST

**CME Credits: 1.5** 

#### **Moderators:**

Marc Dewey; Berlin / Germany Carlo Catalano; Roma / Italy

#### Chairpersons' introduction (10 min)

Marc Dewey; Berlin / Germany Carlo Catalano; Roma / Italy

RACOON: The German nationwide Radiological Cooperative Network for imaging research on COVID-19 and beyond (8

min)

Andreas Michael Bucher; Frankfurt / Germany

Discussant (4 min)

Emanuele Neri; Pisa / Italy

Opportunistic prediction of mortality risk: the role of the chest computed tomography scan in a cohort of COVID-19 patients (8 min)

Chiara Gnasso; Milan / Italy

Discussant (4 min)

Rodrigo Alonso González; Madrid / Spain

Large vessel occlusion of the anterior circulation and low NIHSS, what should we do? A multicenter propensity score matching analysis (8 min)

Arianna Camilli; Roma / Italy

Discussant (4 min)

Nadya Pyatigorskaya; PARIS / France

The effect of music on patients' anxiety in venous catheter placements procedures: a prospective randomised controlled trial (8 min)

Florian Nima Nima Fleckenstein; Berlin / Germany

Discussant (4 min)

Paolo Marra; Bergamo / Italy



Multireader comparison and validation of previously published MRI tumour response evaluation methods in rectal cancer (8  $\min$ )

Najim El Khababi; Amsterdam / Netherlands

**Discussant** (4 min)

Andrea Laghi; Roma / Italy

Learning the assessment of tumour response categories from structured radiology reports (8 min)

Matthias Alexander Fink; Heidelberg / Germany

Discussant (4 min)

Angel Alberich-Bayarri; Valencia / Spain



### RPS 1107 - What is best to detect prostate cancer?

Categories: Artificial Intelligence & Machine Learning, Contrast Media, Genitourinary, Molecular Imaging, Oncologic Imaging

Date: July 14, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

#### **Moderator:**

Olivio Fabrizio Donati; Zürich / Switzerland

The negative predictive value of PI-RADS V2 for clinically significant prostate cancer on 3T multiparametric MRI (8 min) Qi Miao; Shenyang / China

Differentiation of benign prostate hyperplasia from prostate cancer based on the combination of radiomics signatures of the transition zone in mpMRI and PSA-level elevations (8 min)

Benedict Oerther; Freiburg / Germany

A randomised controlled trial on the role of MRI for prostate cancer screening: prostate cancer secondary screening in Sapienza, PROSA preliminary results (8 min)

Emanuele Messina; Rome / Italy

Biparametric versus multiparametric MR imaging of prostate imaging reporting and data system version 2.1 in detection of prostate cancer (8 min)

Ahmed Mohamed Ali Khalil Elhendy; Mansoura / Egypt

Towards the definition of radiomics and clinical indices to enhance malignant tumour diagnosis in PI-RADS 4 and 5 lesions (8 min)

Paolo Niccolò Franco; Monza / Italy

Artificial intelligence and multiparametric (mp)MRI in the assessment of prostate cancer (PCa) aggressiveness (8 min) Laura Mercatelli; Firenze / Italy

An impact of prior treatment with 5-alpha inhibitor on apparent diffusion coefficient values in prostate cancer differentiation (8 min)

Yulian Mytsyk; Lviv / Ukraine

Compare the performance of 3T mpMRI performed pre- and post-biopsy for clinically significant prostate cancer detection bases on whole-mount histopathology correlation (8 min)

Qi Miao; Shenyang / China

EPE-score: a comprehensive grading system for predicting pathologic extraprostatic extension of prostate cancer at multi-parametric magnetic resonance imaging (8 min)



Giulio Antonino Strazzarino; Ivrea / Italy

The role of ADC values in the distinction between clinically significant PCa, insignificant PCa and HPIN lesions by 3T MRI (8 min)

Georgios Agrotis; Larisa / Greece



### **RPS 1104 - Thoracic malignancies**

Categories: Artificial Intelligence & Machine Learning, Chest, Imaging Methods

Date: July 14, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

#### **Moderator:**

Johan Coolen; Leuven / Belgium

Volume doubling times of pulmonary metastases of bone and soft tissue sarcomas: correlation with subsequent new metastases and survival after metastasectomy (8 min)

Yura Ahn; Seoul / Korea, Republic of

Pulmonary MRI with UTE: potential for improving lymph node metastasis prediction capability with and without DWI as compared with thin-section CT and PET/CT in NSCLC patients (8 min)

Yoshiharu Ohno; Toyoake / Japan

Delta-radiomics features for predicting response to immunotherapy and outcome in advanced non-small cell lung cancer patients (8 min)

Han Xiaoyu; Wuhan / China

Appropriate b value for computed DWI results in superior capability for N-stage assessment of NSCLC patients than that of actual DWI, STIR imaging and FDG-PET/CT (8 min)

Yoshiharu Ohno; Toyoake / Japan

Automatic segmentation and T-staging of oesophageal cancer using deep learning on CT images (8 min)

Yue Wang; Jinan / China

Apparent diffusion coefficient for accessing the early response to neoadjuant chemoradiotherapy in locally advanced oesophageal cancer (8 min)

Xiaoqian Li; Shanghai / China

Non-cancerous features on chest computed tomography predict overall survival in stage I non-small cell lung cancer (NSCLC) treated with stereotactic body radiotherapy (SBRT) (8 min)

Florian J. Fintelmann; Boston / United States

Bronchiolar adenoma/ciliated muconodular papillary tumour mimicking peripheral lung cancer: CT features of 48 cases (8 min)

(0 11111)

Yue Wang; Jinan / China

Value of dual-layer spectral detector CT for delineation of central type lung cancer in patients with atelectasis (8 min)



Yuangang Qi; Jinan / China

A novel algorithm for accurate lymph node metastasis prediction in synchronous multiple primary lung cancer: a multicentre study (8 min)

Wenbiao Zhang; Guangzhou / China

Radiomics features of neuroendocrine tumours (NET) of the lung: comparative study using different CT scans (8 min)

Eleonora Bicci; Florence / Italy



#### RPS 1105 - Radiology workflow evolution and new developments

Categories: Imaging Informatics, Imaging Methods, Management/Leadership

Date: July 14, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Costin Aurelian Minoiu; Bucharest / Romania

Exploring automated MR logfile analysis and clinical context to quantify exam changeover time as basis for future workflow optimisation (8 min)

Xinyu Wang; Hamburg / Germany

Sustanaibility in radiology: a model of optimisation for the development of a green, ecofriendly and smart radiology (8

Stefano Palmucci; Catania / Italy

Importance of business analytics for the re-organization of an academic hospital radiology unit during the COVID-19 pandemic (8 min)

Michela Polici; Rome / Italy

**Structured reporting yields linguistic standardisation and semantic distinguishability of radiology reports** (8 min) Jan Vosshenrich; Basel / Switzerland

A novel approach to a national patient dose registry (8 min)

Juan Vicente Catret Mascarell; Valencia / Spain

Automated analysis of CT repeated scans in a large European hospital (8 min)

Niki Fitousi; Leuven / Belgium

Digital evolution of informed patient consent: added value for CT examinations (8 min)

Matthias Stefan May; Erlangen / Germany

A study on RECIST variability: a mathematical simulation (8 min)

Teresa Bucho; Amsterdam / Netherlands

Al co-pilot: content-based image retrieval for the reading of rare diseases in chest CT (8 min)

Mathias Meetschen; Essen / Germany



Contrast media reduction in CT with deep learning utilising a generative adversarial network in an experimental animal study (8 min)

Johannes Haubold; Essen / Germany



# E<sup>3</sup> 1120a - Hepatocellular carcinoma: a multidisciplinary approach in real life

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Valérie Vilgrain; Clichy / France

Chairperson's introduction (5 min)

Valérie Vilgrain; Clichy / France

Diagnosis and follow-up of hepatocellular carcinoma (15 min)

Valérie Vilgrain; Clichy / France

Treatment algorithms in hepatocellular carcinoma: the hepatologist's view (15 min)

Peter R Galle; Mainz / Germany

Radiological treatment of hepatocellular carcinoma (15 min)

Laura Crocetti; Pisa / Italy

Multidisciplinary tumour board: case-based panel discussion (40 min)

Valérie Vilgrain; Clichy / France



### RPS 1116 - Pulmonary and skeletal oncology

Categories: Artificial Intelligence & Machine Learning, Chest, Imaging Methods, Musculoskeletal, Nuclear Medicine, Oncologic

**Imaging** 

Date: July 14, 2022 | 16:00 - 17:00 CEST

**CME Credits:** 1

**Moderator:** 

Gianluca Milanese; Parma / Italy

Association between contrast-enhanced CT radiomic features and gene alterations in advanced non-small cell lung cancer patients (8 min)

Lisa Rinaldi; Varese / Italy

Association between contrast-enhanced CT radiomic features and prognosis in advanced non-small cell lung cancer patients (8 min)

Lisa Rinaldi; Varese / Italy

Performance of whole body MRI with background suppression in detecting metastatic lesions in adenocarcinoma of the lung as compared to 18F-FDG PET/CT (8  $\min$ )

Jeevitesh Khoda; New Delhi / India

Imaging findings and value of CT and (DCE-)MRI in monitoring denosumab therapy of giant cell tumours of bone (8 min) Thomas Van Den Berghe; Lochristi / Belgium

Assessment of a targeted imaging pathway for investigation of pain in patients with known, biochemically stable multiple myeloma (8 min)

Alina Denisa Dragan; Sutton / United Kingdom

Prognostic value of myosteatosis assessed by computed tomography in patients with multiple myeloma (8 min)

Thierno D. Diallo; Freiburg / Germany

Novel free-breathing day-optimising-throughput sequences in comparison with conventional breath-hold examinations during whole-body MRI (8 min)

Vitali Koch; Frankfurt am Main / Germany





# E<sup>3</sup> 1121 - Sport injuries

Categories: Emergency Imaging, General Radiology, Imaging Methods, Musculoskeletal

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Upper limb** (45 min) Igor Boric; Zabok / Croatia

Lower limb (45 min)

Carlo Martinoli; Rapallo / Italy



# E<sup>3</sup> 1122 - Head and neck tumours in children: a multidisciplinary approach

Categories: Head and Neck, Imaging Methods, Multidisciplinary, Oncologic Imaging, Paediatric Imaging

ETC Level: LEVEL ||+|||

Date: July 14, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Rick van Rijn; Amsterdam / Netherlands

**Chairperson's introduction** (5 min) Rick van Rijn; Amsterdam / Netherlands

Role of imaging in a child with a head and neck tumour (15 min)

Anneloes (A.E.) Bohté; Utrecht / Netherlands

Management of a child with a head and neck tumour: the oncologist's perspective (15 min)

Rutger Knops; Utrecht / Netherlands

Use of radiation therapy in a child with a head and neck tumour (15 min)

GeertO.R. Janssens; Utrecht / Netherlands

Multidisciplinary tumour board: case-based panel discussion (40 min)

Rick van Rijn; Amsterdam / Netherlands



#### E<sup>3</sup> 1123 - Interventional

Categories: Interventional Radiology, Vascular

ETC Level: LEVEL I+II

Date: July 14, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Irene Bargellini; Candiolo / Italy

Chairperson's introduction (6 min)

Irene Bargellini; Candiolo / Italy

Basic principles of angiography and image-guided interventions (28 min)

Rene Müller-Wille; Wels / Austria

Image-guided interventions in oncology (28 min)

Lukas Luerken; Regensburg / Germany

Vascular interventions (28 min)

Dimitrij Kuhelj; Ljubljana / Slovenia



# IF 11 - The official opening of Patients in Focus

Categories: General Radiology

Date: July 14, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

#### **Moderators:**

Erik Briers; Brussels / Belgium

Regina G. H. Beets-Tan; Amsterdam / Netherlands

#### Introduction to Patients in Focus (5 min)

Regina G. H. Beets-Tan; Amsterdam / Netherlands

#### My life as caretaker and becoming a patient and care-needer (15 min)

Erik Briers; Brussels / Belgium

# 

min)

Katharina Gruber; Vienna / Austria

#### Introduction to the Patient in Focus posters (5 min)

Erik Briers; Brussels / Belgium

Panel discussion: Is the patient in focus? Should we consider liaison with other medical care professionals to support patients and caretakers/caregivers? (20 min)

Caroline Justich; Vienna / Austria



# OF 11a - Live and e-learning: filling the gap - tips and tricks of "hybrid learning"

**Categories:** Education **ETC Level:** LEVEL I+II

Date: July 14, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

**Moderator:** 

Majda M. Thurnher; Vienna / Austria

**Chairperson's introduction** (5 min) Majda M. Thurnher; Vienna / Austria

Live and e-learning: filling the gap (25 min)

Majda M. Thurnher; Vienna / Austria

Tips and tricks of "hybrid learning" (15 min)

Loukas G Astrakas; Ioannina / Greece

Open forum discussion (15 min)



# OF 11b - CCEA: what we are doing for the radiology community?

Categories: Management/Leadership, Professional Issues

ETC Level: LEVEL I+II

Date: July 14, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

**Moderator:** 

Nikoleta I. Traykova; Plovdiv / Bulgaria

The education of young radiologist in Ukraine (10 min)

Tetyana Yalynska; Kyiv / Ukraine

The more visible radiologist (10 min)

Valdair Francisco Muglia; Ribeirao Preto / Brazil

To be seen: the acknowledgement of the patient as a person (10 min)

Evelyn Steinthaler; Vienna / Austria

CCEA: from the past to the future (10 min)

Michele Bertolotto; Trieste / Italy

Discussion (20 min)



# OF 11R - Top tips in oncology imaging 4: protocols for breast imaging

Categories: Breast, Contrast Media, Imaging Methods, Oncologic Imaging, Radiographers

Date: July 14, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

#### **Moderator:**

Lyanne Molenaar; Amsterdam / Netherlands

CT mammary and perforating arteries and veins: presentation radiographer (10 min)

Sevval Ertugrul; Amsterdam / Netherlands

CT mammary and perforating arteries and veins: presentation radiologist (10 min)

Ritse Maarten Mann; Nijmegen / Netherlands

**Discussion** (10 min)

**Breast MR: presentation radiographer** (10 min)

Irene Kain; Mödling / Austria

**Breast MR: presentation radiologist** (10 min)

Paola Clauser; Vienna / Austria

Discussion (10 min)



# OF 11Y - The beauty of radiology for undergraduates and young residents

Categories: Abdominal Viscera, Chest, Genitourinary, GI Tract, Students

ETC Level: LEVEL I

Date: July 14, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

#### **Moderator:**

Vicky Goh; London / United Kingdom

### Chairperson's introduction (5 min)

Vicky Goh; London / United Kingdom

### Key anatomy on chest and abdominal radiographs (10 min)

Jim Zhong; Leeds / United Kingdom

#### Classical signs in chest imaging (10 min)

Anagha P. Parkar; Bergen / Norway

#### Classical signs in abdominal imaging (10 min)

Sofia Gourtsoyianni; Athens / Greece

#### Classical signs in urological imaging (10 min)

Aart J. Van Der Molen; Leiden / Netherlands

Open forum discussion: The art of classical signs. How can knowledge of classical signs improve practice? (15 min)





# RC 1103 - Pros and Cons: Evaluating patients with stable cardiac chest pain: non-invasive anatomical coronary artery imaging should be the first-line investigation for all patients

Categories: Cardiac, Contrast Media, Imaging Methods, Professional Issues

**ETC Level:** ALL LEVELS

Date: July 14, 2022 | 16:00 - 17:00 CEST

**CME Credits:** 1

#### **Moderator:**

Rozemarijn Vliegenthart; Groningen / Netherlands

### Chairperson's introduction (5 min)

Rozemarijn Vliegenthart; Groningen / Netherlands

**PRO** (15 min)

Fabian Bamberg; Freiburg / Germany

**CON** (15 min)

Robert Manka; Zürich / Switzerland

Panel Discussion: Is a single test sufficient in all patients? Are imaging departments ready and prepared to provide these diagnostic services? (25 min)





# RC 1111 - Pros and Cons: MR spectroscopy never made it into clinical neuroradiology

Categories: Imaging Methods, Neuro, Professional Issues, Research, Translational Imaging

ETC Level: LEVEL III

Date: July 14, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

**Moderator:** 

Luc Van Den Hauwe; Ekeren / Belgium

**Chairperson's introduction** (5 min) Luc Van Den Hauwe; Ekeren / Belgium

**PRO** (15 min)

Zoran Rumboldt; Rovinj-Rovigno / Croatia

**CON** (15 min)

Dorothee Auer; Nottingham / United Kingdom

Panel discussion: MR spectroscopy: dead or alive in clinical neuroradiology? (25 min)



# SF 11 - My three top tips for musculoskeletal imaging

Categories: Imaging Methods, Musculoskeletal, Oncologic Imaging

ETC Level: LEVEL II

Date: July 14, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Joan C. Vilanova; Girona / Spain

Chairperson's introduction (5 min)

Joan C. Vilanova; Girona / Spain

Chondroid tumours (8 min)

Remide Arkun; Izmir / Turkey

Osseous tumours (8 min)

Radhesh Lalam; Oswestry / United Kingdom

Soft tissue tumours (8 min)

Klaus Woertler; Munich / Germany

Questions and discussion (7 min)

Rheumatoid arthritis (8 min)

Monique Reijnierse; Leiden / Netherlands

Spondylarthritis (SpA) (8 min)

Evangelia E. Vassalou; IRAKLION / Greece

CRMO/CNO/SAPHO (8 min)

James Teh; Oxford / United Kingdom

Questions and discussion (7 min)

Muscle oedema (8 min)

Violeta Vasilevska Nikodinovska; Skopje / Macedonia

Bone marrow oedema (8 min)



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Ilze Engele; Riga / Latvia

Questions and discussion (7 min)



# TC 11 - Treatment and follow up

Categories: Breast ETC Level: LEVEL III

Date: July 14, 2022 | 16:00 - 17:00 CEST

**CME Credits:** 1

#### **Moderators:**

Fiona J. Gilbert; Cambridge / United Kingdom Emily F. Conant; Philadelphia / United States

# A. Neoadjuvant breast imaging to stage and assess response (20 min)

Linda Moy; New York / United States

# **B. Post-therapy imaging** (20 min)

Julia Camps Herrero; Valencia / Spain

### C. Interactive case discussion (20 min)

Linda Moy; New York / United States Julia Camps Herrero; Valencia / Spain



### RPS 1111 - Neuroimaging in neurodegenerative diseases

**Categories:** Imaging Methods, Neuro **Date:** July 14, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Jasmina Boban; Novi Sad / Serbia

Does macronutrient deficiency affect white matter integrity positively in elderly? Results of a DTI study (8 min)

Ahmet Kaya; Tekirdag / Turkey

Overloaded metal associated with plasma neurofilament light chain in Wilson's disease (8 min)

Zihuan Huang; Guangzhou / China

Comparison of the accuracy of quantitative automatic and radiological imaging markers in distinguishing parkinson disease and progressive supranuclear palsy (8 min)

Francesca Mambrin; Verona / Italy

Right cingulum cingulate correlates with gait and cognitive impairments in Parkinson's disease (8 min)

Xuan Wei; Beijing / China

A critical evaluation of hemodynamic quality by single-time-point ASL in dementia (8 min)

Valerio Natale; Verona / Italy

Impact of the inversion time on regional brain perfusion estimation with clinical arterial spin labelling protocols (8 min)

Francesco Sanvito; Pavia / Italy

Decreased cerebral blood flow and delayed arterial transit are independently associated with white matter hyperintensity (8 min)

Ruiting Zhang; Paris / France

Characterisation of normal-appearing white matter over 1-2 years in small vessel disease using quantitative susceptibility mapping and free-water mapping (8 min)

Yawen Sun; Shanghai / China

Alterations of brain networks in mild cognitive impairment: a resting-state fMRI study (8 min)

Andrei Manzhurtsev; Moscow / Russia



ECR 2022

Using syMRI to explore the biological markers of brain aging (8 min)

Shasha Bao; Kunming City, Yunnan Province / China



# PC 11 - Optimising professional radiographers' training

Categories: Education, Management/Leadership, Professional Issues, Radiographers, Students

Date: July 14, 2022 | 16:00 - 17:30 CEST

**CME Credits:** 1.5

#### **Moderators:**

Roberta Gerasia; Palermo / Italy Berit Verbist; Leiden / Netherlands

### Chairpersons' introduction (2 min)

Roberta Gerasia; Palermo / Italy

Irina Abelskaia; Ag. Zhdanovichi / Belarus

### "In house" subspecialty training: raising standards (15 min)

Francis Zarb; Msida / Malta

### Multidisciplinary training opportunities (15 min)

Shane J Foley; Dublin / Ireland Paddy Gilligan; Dublin / Ireland

#### Clinical simulation to support learning (15 min)

Kurt Van Belle; Sint Andries / Belgium

Supporting expanding roles (15 min)

Panel discussion: Does radiographers' advanced training improve high-quality diagnosis and patient outcomes? (28 min)



# E<sup>3</sup> 1120b - Common and uncommon incidental liver lesions in non-cirrhotic patients: a multidisciplinary approach

Categories: Abdominal Viscera, GI Tract, Interventional Oncologic Radiology, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL II

Date: July 14, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

Moderator:

Yves Menu; Paris / France

Chairperson's introduction (5 min)

Yves Menu; Paris / France

The incidentally discovered solid lesion: how to diagnose (15 min)

Federica Vernuccio; Padova / Italy

How to manage the incidentally discovered solid lesion: the radiologist's perspective (15 min)

Yves Menu; Paris / France

How to manage the incidentally discovered solid lesion: the clinician's perspective (15 min)

Thomas Grünberger; Vienna / Austria

Multidisciplinary tumour board: case-based panel discussion (40 min)

Yves Menu; Paris / France



# - Highlights from the Mobile Film Crew Day 3

**Date:** July 15, 2022 | 02:15 - 02:30 CEST

**Moderator:** 

Ben Giese; Chicago / United States



# RC 1202 - Minimally invasive treatment for breast lesions

Categories: Breast, Imaging Methods, Oncologic Imaging

ETC Level: LEVEL III

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Paola Clauser; Vienna / Austria

**Chairperson's introduction** (5 min)

Alexandra Athanasiou; Athens / Greece

Benign lesions: is there a role? (15 min)

Mercedes Torres-Tabanera; Zaragoza / Spain

B3 lesions: can we avoid surgery? (15 min)

Julia Camps Herrero; Valencia / Spain

Is surgery always the answer to managing breast cancers? (15 min)

Nisha Sharma; Leeds / United Kingdom

Panel discussion: Image-guided treatments: the time is now (10 min)



# RC 1205 - Artificial intelligence (AI) trustworthiness: from black boxes to glass boxes

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Multidisciplinary, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Nadya Pyatigorskaya; PARIS / France

**Chairperson's introduction** (5 min) Nadya Pyatigorskaya; PARIS / France

Generative adversarial networks (GAN) in medical imaging (10 min)

Ana Jimenez-Pastor; Valencia / Spain

 $\ \, \textbf{Minimum information about clinical artificial intelligence modelling: how to improve transparent reporting of Alalgorithms (10 min)$ 

Laurens Topff; Amsterdam / Netherlands

Why to use manifold learning? (10 min)

Interpretability and explainability explained (10 min)

Bas H.M. Van der Velden; Utrecht / Netherlands

Panel discussion: Al trustworthiness: from black boxes to glass boxes (15 min)



# RC 1211 - Advanced MRI techniques in clinical neuroradiology

Categories: Imaging Methods, Neuro, Physics in Medical Imaging, Translational Imaging, Vascular

ETC Level: LEVEL II

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Sven Haller; Geneve / Switzerland

Chairperson's introduction (5 min)

Sven Haller; Geneve / Switzerland

Susceptibility weighted imaging (SWI) (15 min)

Sven Haller; Geneve / Switzerland

Arterial spin labelling (ASL) perfusion (15 min)

VeraC. Keil; Bonn / Germany

Zero echo time (TE) imaging (15 min)

Emil Ljungberg; Lund / Sweden

Panel discussion: Which advanced techniques have found a place in clinical routine (10 min)



# RC 1213 - Advancing image-guided interventions with artificial intelligence (AI) and modelling

Categories: Artificial Intelligence & Machine Learning, Interventional Oncologic Radiology, Nuclear Medicine, Oncologic Imaging,

Physics in Medical Imaging

ETC Level: LEVEL III

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderators:**

Annalisa Trianni; Trento / Italy Osvaldo Rampado; Turin / Italy

#### Chairperson's introduction (5 min)

Annalisa Trianni; Trento / Italy

# Al and biomechanical modelling for advances in image-guided focal liver ablation (15 min)

Kristy Brock; Houston, TX / United States

#### Clinical advances in stereotactic radiofrequency ablation of liver tumours (15 min)

Reto Bale; Innsbruck / Austria

# $\textbf{US-PET/CT fusion for image fusion for guidance of thermal ablation} \ (15 \ \text{min})$

Luigi Alessandro Solbiati; Rozzano (Milano) / Italy

Panel discussion: What is now possible with interventional radiology? (10 min)



# RC 1214 - Pros and Cons: Patient shielding is no longer needed

Categories: EuroSafe Imaging/Radiation Protection, Physics in Medical Imaging, Professional Issues, Radiographers, Students

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderators:**

Graciano Paulo; Coimbra / Portugal Claudio Granata; Trieste / Italy

# **Chairpersons' introduction** (6 min)

Graciano Paulo; Coimbra / Portugal

**PRO** (12 min)

Philip Cosson; Middlesbrough / United Kingdom

**CON** (12 min)

Mark F. F. McEntee; Cork / Ireland

Panel discussion: Patient shielding: should it stay or should it go and how to establish best clinical practice? (30 min)

Claudio Granata; Trieste / Italy Paddy Gilligan; Dublin / Ireland



# RC 1201 - Oesophageal and gastric junctional cancer

Categories: GI Tract, Imaging Methods, Molecular Imaging, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Jorge Brito; Faro / Portugal

Chairperson's introduction (2 min)

Jorge Brito; Faro / Portugal

A surgeon's view on oesophageal and gastric junctional cancer (15 min)

William Allum; London / United Kingdom

The role of PET/CT in oesophageal and gastric junctional cancer (10 min)

Ahmed Ba-Ssalamah; Vienna / Austria

The role of CT in oesophageal and gastric junctional cancer (10 min)

Kieran George Foley; Cardiff / United Kingdom

The role of MRI in oesophageal and gastric junctional cancer (10 min)

Angela Riddell; London / United Kingdom

Panel discussion: What is the best diagnostic workup for oesophageal and gastric junctional cancer? (13 min)



# ProCAncer-I - Building bridges. From radiomics/AI research to clinical practice: the ProCAncer-I vision

Categories: Artificial Intelligence & Machine Learning, Genitourinary, Oncologic Imaging, Professional Issues, Research

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Manolis Tsiknakis; Greece

Chairpersons' introduction (2 min)

Manolis Tsiknakis; Greece

Main challenges in the adoption of radiomics/AI in clinical practice (8 min)

Nikolaos Papanikolaou; Lisbon / Portugal

Role of radiologists in radiomics/Al clinical projects (8 min)

Daniele Regge; Torino / Italy

Discussion (42 min)

Luis Marti-Bonmati; Valencia / Spain Harriet Thoeny; Bern / Switzerland Deniz Akata; Ankara / Turkey Emanuele Neri; Pisa / Italy Ioannis Seimenis; Athens / Greece

Kostas Marias; Heraklion / Greece



# OF 12b - Imaging biomarkers: should we pay attention?

Categories: Evidence-Based Imaging, Imaging Informatics, Imaging Methods, Professional Issues

ETC Level: LEVEL II

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderator:**

Aad Van Der Lugt; Rotterdam / Netherlands

There is a need to measure in radiological practice: disease is present or absent: pro (5 min)

Manuela M. França; Maia / Portugal

There is a need to measure in radiological practice: disease is present or absent: con (5 min)

Marion Smits; Rotterdam / Netherlands

Live Q&A (10 min)

What is the problem with measurements? We know what we are doing: pro (5 min)

Xavier Xavier Golay; London / United Kingdom

What is the problem with measurements? We know what we are doing: con (5 min)

Manuela M. França; Maia / Portugal

Live Q&A (10 min)

Validation of biomarkers is cumbersome, boring, and not needed: pro (5 min)

Xavier Xavier Golay; London / United Kingdom

Validation of biomarkers is cumbersome, boring, and not needed: con (5 min)

Marion Smits; Rotterdam / Netherlands

Live Q&A (10 min)



# RPS 1210 - Shoulder and upper limb

Categories: EuroSafe Imaging/Radiation Protection, General Radiology, Imaging Methods, Musculoskeletal

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderator:**

Jean-Luc Drape; Paris / France

Occupation-ratio underestimates muscle volume in full-thickness supraspinatus tears with medial tendon retraction (8 min)

min,

Sophia Samira Goller; Munich / Germany

Accelerated TSE imaging of the shoulder using deep learning image reconstruction (8 min)

Judith Herrmann; Tübingen / Germany

Optimisation of the Grashey view radiography for the critical shoulder angle measurement: a reliability assessment with zero echo-time MRI (8 min)

Üstün Aydingöz; Ankara / Turkey

Performances of a deep learning algorithm for the detection of fracture, dislocation, elbow joint effusion, focal bone lesions on trauma x-rays (8 min)

Nor-Eddine Regnard; Lieusaint / France

The deep motor branch of the ulnar nerve: high resolution ultrasound beyond the Guyon tunnel (8 min)

Luca Tovt; Genoa / Italy

Extensor carpi ulnaris tendon pathology and related bone marrow oedema as diagnostic markers of peripheral triangular fibrocartilage tears on wrist MRI (8 min)

Mika Tapani Nevalainen; Oulu / Finland

High-resolution ultrasound of post-procedural complications in carpal tunnel syndrome surgical release (8 min)

Michelle Pansecchi; Genova / Italy





# RPS 1213 - Advances in CT dosimetry and radiobiology

Categories: EuroSafe Imaging/Radiation Protection, Physics in Medical Imaging

Date: July 15, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

**Moderator:** 

Marc Kachelrieß; Heidelberg / Germany

Risk-minimising tube current modulation (riskTCM) for CT: potential dose reduction across different tube voltages (8 min)

Laura Klein; Heidelberg / Germany

A software program for the fully automated contouring of patient outlines for the determination of size specific dose estimate in abdominal CT: results of initial testing on 17 systems (8 min)

Eric Pace; Swieqi / Malta

Effects of simvastatin/metformin therapy on double-strand breaks in human lymphocytes in vitro after diagnostic range ionising radiation (8 min)

Dorde Komljenovic; Erlangen / Germany

Impact of x-ray exposure by single- and dual-energy CT on gene expression, DNA methylation profiles and DNA integrity in peripheral blood cells (8 min)

Benjamin Valentin Becker; Koblenz / Germany

Feasibility of using size-specific dose estimate (SSDE) to estimate effective dose of individual patients (8 min)

Abdullah Abuhaimed; Riyadh / Saudi Arabia

Evaluation of BMI's (body mass index) impact on LDRL deriving from large cohort of oncology patients undergoing three phases multiregional CT (8 min)

Agnieszka Kuchcinska; Warsaw / Poland

Evaluation of the IVIscan detector for CT scan's wide radiation beam and radiotherapy cone-beam CT dosimetric quality control (8 min)

Christian Popotte; Strasbourg / France



# **RPS 1201 - Advances in liver imaging**

Categories: Abdominal Viscera, Contrast Media, Imaging Methods, Interventional Oncologic Radiology, Research

Date: July 15, 2022 | 08:00 - 09:30 CEST

**CME Credits:** 1

#### **Moderator:**

Christoph Johannes Zech; Basel / Switzerland

Detecting NASH and grading fibrosis in subjects with NAFLD using non-invasive imaging biomarkers (8 min)

Salem Alsaqal; Uppsala / Sweden

Changes in volumetric enhancing tumour burden on CT predicts survival outcomes in patients with neuroendocrine liver metastases after intraarterial treatments (8 min)

Roberto Cannella; Palermo / Italy

Gadoxetic acid-enhanced MR imaging predictors of mortality and hepatic decompensation in Chronic Liver Disease (CLD) (8 min)

Lucian Beer; Vienna / Austria

Gadoxetic acid MRI in cirrhotic patients: radiologic-pathologic correlation in nodules without arterial enhancement and hepatobiliary hypointense pattern (8 min)

Gianvito Candita; Pisa / Italy

MRI extracellular volume fraction in liver fibrosis: a comparison of different blood pool measurements with MR elastography and histology (8 min)

Verena Obmann; Bern / Switzerland

The role of liver vessel volume ratio in chronic liver disease (8 min)

Alexander Johannes Herold; Vienna / Austria

Progression of portal hypertension in acute cellular rejection after liver transplantation (8 min)

Ji Young Choi; Seoul / Korea, Republic of

Liver MRI: assessment of liver cirrhosis severity with extracellular volume fraction (8 min)

Narine Mesropyan; Bonn / Germany

Evaluation of hepatic tissue shrinkage after microwave ablation using Jacobian determinant (JD) (8 min)

Gesa Helen Pöhler; Hannover / Germany



# BUILDING BRIDGES JULY 13-17 | VIENNA

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Correlation of histologic, imaging, and artificial intelligence features in NAFLD patients, derived from gadoxetic acidenhanced MRI: a proof-of-concept study (8 min)

Nina Bastati-Huber; Vienna / Austria





# OF 12a - Opening the field of radiology

Categories: Artificial Intelligence & Machine Learning, Forensic Imaging, Management/Leadership, Physics in Medical Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderator:**

Apostolos H. Karantanas; Heraklion / Greece

**Chairperson's introduction: The role of the ESR Subspecialties and Allied Sciences Committee** (5 min)

Apostolos H. Karantanas; Heraklion / Greece

Visibility of the radiologist: why are soft skills so important? (10 min)

Valérie Vilgrain; Clichy / France

Forensic imaging: time to move forward (10 min)

Garyfalia Ampanozi; Zurich / Switzerland

Al in medical physics: facts and trends (10 min)

Habib Zaidi; Genève / Switzerland

Discussion (25 min)



# RPS 1211 - Neurodegenerative diseases: dementia

Categories: Imaging Methods, Neuro

Date: July 15, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

**Moderator:** 

Danai Chourmouzi; Thessaloniki / Greece

Assessment of the superficial white matter alterations using diffusion tensor imaging and CSF biomarkers in neurodegenerative dementia (8 min)

Stefania Criscuolo; MILANO / Italy

Anatomically standardised detection of MRI atrophy patterns in early-stage Alzheimer's disease (8 min)

Lukas Lenhart; Innsbruck / Austria

Behavioural and psychological symptoms of dementia are associated with structural brain changes in the limbic system (8 min)

Luca Melazzini; Pavia / Italy

European inter-societal Delphi consensus for the biomarker-based aetiological diagnosis of neurocognitive disorders (8 min)

Francesca Benedetta Pizzini; Verona / Italy

Qualitative and quantitative comparison of hippocampal volumetric software applications: do all roads lead to Rome? (8 min)

Stephanie Mangesius; Innsbruck / Austria

High-frequency repetitive transcranial magnetic stimulation induces regional cerebral blood flow changes of precuneus in Alzheimer's disease (8 min)

Wenzhen Zhu; Wuhan / China

Building a comprehensive model of normal brain ageing with brain MRI, cognitive tests and machine learning (8 min)

Sarah Meribout; Constantine / Algeria



### RPS 1203 - New developments in cardiac CT and calcium scoring

Categories: Cardiac, Imaging Methods, Physics in Medical Imaging

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Elke Zimmermann; Berlin / Germany

Coronary CT angiography with photon-counting computed tomography: first-in-human results (8 min)

Salim Aymeric Si-Mohamed; Bron / France

Coronary stent image quality with a spectral photon counting CT: first results in humans (8 min)

Sara Boccalini; Bron / France

Benefit of virtual monoenergetic imaging reconstructions for coronary CT angiography on a novel dual-source photon counting detector CT: comparison with energy-integrating detector CT (8 min)

Josua A. Decker; Augsburg / Germany

Novel virtual non-contrast reconstruction for coronary calcium scoring derived from coronary CT angiography using dual-layer dual-energy CT (8 min)

Isabel Luisa Langenbach; Boston / United States

Coronary CTA-based calcium scoring: in-vitro and in-vivo validation of a novel virtual non-iodine reconstruction algorithm on a clinical, first-generation photon counting-detector system (8 min)

Tilman Stephan Emrich; Charleston / United States

Dual-source photon-counting CT in coronary artery calcium imaging: early experience and comparison to current clinical standard (8 min)

Fides Regina Schwartz; Durham / United States

Influence of mono-energetic image reconstruction levels for coronary artery calcium scoring on a dual-source photon-counting CT: a dynamic phantom study (8 min)

Marcel van Straten; Rotterdam / Netherlands



# RPS 1214 - Optimising CT practice: enhancing examination outcomes

Categories: EuroSafe Imaging/Radiation Protection, Imaging Methods, Physics in Medical Imaging, Professional Issues, Radiographers

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderators:**

Francis Zarb; Msida / Malta Lorenzo Preda; Pavia / Italy

Assessment of image quality and radiation dose in the study of carotid arteries by computed tomography in low-dose protocols (8 min)

Agnieszka Julia Bylinka; Bydgoszcz / Poland

Contrast monitoring techniques in thoracic-abdominal CT examinations: an important and underappreciated contributor to patient dose (8 min)

Julius Verbe Zoum; Marburg / Germany

Cardiac CT Hi-res scan mode in stent patients (8 min)

Svea Deppe Moerup; Odense / Denmark

Advanced diagnostic pathway using CT coronary angiography (CTCA) for the management of a chest pain pathway in the emergency department before and during the covid pandemic: a single centre experience (8 min)

David William Reidy; Limerick / Ireland

Detection of incidental adrenal nodules on CT by radiographers (8 min)

Sarah Camilleri; Rabat / Malta

A study to investigate how confident CT trained radiographers are at performing paediatric CT trauma scans (8 min)

Heather Jane Greenberg; CARDIFF / United Kingdom





# **RPS 1207 - Advances in urological imaging**

Categories: Genitourinary

Date: July 15, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

#### **Moderator:**

Valeria Panebianco; Roma / Italy

Radiomics for the assessment of renal masses: a multicentre CT study with independent validation (8 min)

Johannes Uhlig; Göttingen / Germany

Growth kinetics and progression rates of bosniak classification version 2019 class III and IV cystic renal masses on active surveillance (8 min)

Justin Ruey Tse; Stanford / United States

Can shear wave elastography be a reliable non-invasive tool in diagnosis and follow-up of lupus nephritis? (8 min)

Mohamed Ebrahem Abou El-Ghar; Mansoura / Egypt

Spectral attenuation curve analysis for evaluation of incidental small renal lesions using rapid kilovoltage-switching dual-energy computed tomography (8 min)

Shanigarn Thiravit; Nonthaburi / Thailand

Influence of ureteral splints on the diagnosis of urinary stones and their composition in dual-energy CT: a phantom study (8 min)

Daniel Pasqual Overhoff; Mannheim / Germany

Diffusion tensor imaging and tractography on non-obstructive azoospermia: a 3T observational study (8 min)

Ourania Pappa; IOANNINA / Greece

Clinical low dose photon counting CT for the detection of urolithiasis: evaluation of image quality and radiation dose (8 min)

Julius Henning Niehoff; Minden / Germany



# **RPS 1216 - Gastrointestinal oncology**

Categories: Abdominal Viscera, Artificial Intelligence & Machine Learning, GI Tract, Nuclear Medicine, Oncologic Imaging

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderator:**

Ioana Gabriela Lupescu; Bucharest / Romania

CT radiomic features of hepatic metastasis for predicting immunohistochemistry molecular classification of primary breast cancer (8 min)

Hanna Bae; Seoul / Korea, Republic of

Evaluation and timing optimisation of CT perfusion first pass analysis in comparison to maximum slope model in pancreatic carcinoma (8 min)

Neha Vats; Heidelberg / Germany

Cost-effectiveness of dual-tracer PET/CT with 18F-FDG and 11C-acetate in staging and management in patients with hepatocellular carcinoma (8 min)

Sik Kwan Chan; POKFULAM / Hong Kong SAR China

SSR-PET/CT compared to contrast-enhanced liver MRI in detection of liver metastases in neuroendocrine tumours (NET): a 15-year retrospective European single-centre analysis (8 min)

Freba Grawe; Munich / Germany

Texture analysis for nonlinear characterisation of 18F-FDG PET/CT images in patients with rectal cancer: comparison between tumour and peritumoural tissues (8 min)

Valerii B Orel; Kyiv / Ukraine



# CTiR 12 - Clinical Trials in Radiology 3

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderators:**

Marc Dewey; Berlin / Germany Carlo Catalano; Roma / Italy

### Chairpersons' introduction (10 min)

Marc Dewey; Berlin / Germany Carlo Catalano; Roma / Italy

# Updated DISCHARGE Trial Pretest Probability Calculator in Stable Chest Pain: Collaborative Meta-Analysis of Cardiac CT (COME-CCT) (8 min)

Viktoria Wieske; Berlin / Germany

#### Discussant (5 min)

Rozemarijn Vliegenthart; Groningen / Netherlands

The yield of chest x-ray or ultra-low-dose chest CT in emergency department patients suspected of non-traumatic pulmonary disease without respiratory symptoms or signs (8 min)

Inge Alma Henrica Van Den Berk; Amsterdam / Netherlands

#### Discussant (5 min)

Mariana Benegas Urteaga; Barcelona / Spain

COV-RADS as a classification system for the diagnosis of COVID-19 pneumonia in chest computed tomography (CT), a german nationwide multicenter validation study (8 min)

Marwin -Jonathan Saehn; Aachen / Germany

#### Discussant (5 min)

Monika Radikė; Liverpool / United Kingdom



# E<sup>3</sup> 24C - Spinal disorders: how to get it right?

Categories: General Radiology, Imaging Methods, Musculoskeletal, Neuro, Oncologic Imaging

ETC Level: LEVEL I+II

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Iwona Sudol-Szopinska; Warsaw / Poland

Vertebral endplate (18 min)

Filip M. Vanhoenacker; Bonheiden / Belgium

Vertebral body collapse (18 min)

Radhesh Lalam; Oswestry / United Kingdom

Tumours (18 min)

Alberto Bazzocchi; Bologna / Italy

Panel discussion (6 min)



# BS 12 - Radiologic anatomy: heart and great vessels

Categories: Cardiac, Vascular

ETC Level: LEVEL I+II

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Christian Loewe; Vienna / Austria

Coronary anatomy: the usual and the suspect (18 min)

Marco Francone; Milan / Italy

Aorta and great arteries: where they are coming from and what can happen (18 min)

Karl-Friedrich Kreitner; Mainz / Germany

Myocardium and cardiac valves (18 min)

Rodrigo Salgado; Antwerpen / Belgium

Questions and answers (6 min)



# RC 1204 - Diagnostic precision in fibrotic lung disorders: lumpers and splitters

Categories: Chest, Imaging Methods, Multidisciplinary, Translational Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Nicola Sverzellati; Parma / Italy

Chairperson's introduction (5 min)

Nicola Sverzellati; Parma / Italy

Do we still need a diagnosis in fibrotic interstitial lung disease (ILD)? (15 min)

Sara Tomassetti; Florence / Italy

HRCT features of individual fibrotic lung diseases (15 min)

Helmut Prosch; Vienna / Austria

Longitudinal imaging metrics in the evaluation of fibrotic lung diseases (15 min)

Alexander Poellinger; Bern / Switzerland

Panel discussion: Precision in diagnosis of fibrotic lung disorders (10 min)



# CUBE 12 - To cool, to burn, to embolise

**Categories:** Interventional Radiology **Date:** July 15, 2022 | 09:00 - 09:30 CEST

CME Credits: 0.5

To cool, to burn, to embolise (30 min)

Filippo Piacentino; Varese / Italy



# **HD 3 - Highlights of the Day**

**Date:** July 15, 2022 | 09:15 - 09:30 CEST

# **Moderator:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands



# PL 2 - Digitalisation and innovation: success factors for the future

Categories: Management/Leadership, Professional Issues

**ETC Level:** ALL LEVELS

Date: July 15, 2022 | 09:30 - 10:00 CEST

CME Credits: 0.5

#### **Moderator:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands

Digitalisation and innovation: success factors for the future (28 min)

Severin Schwan; Basel / Switzerland





# **CUBE 13 - Advancing the role of the sonographer in intervention**

**Categories:** Interventional Radiology **Date:** July 15, 2022 | 09:30 - 10:00 CEST

CME Credits: 0.5

Advancing the role of the sonographer in intervention (30 min)

Gerry Johnson; Manchester / United Kingdom



# RC 1308 - How to write a staging report for head and neck cancer

Categories: Head and Neck, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

**Moderator:** 

Roberto Maroldi; Concesio / Italy

Chairperson's introduction (5 min)

Roberto Maroldi; Concesio / Italy

What does a head and neck surgeon expect from a radiological report (15 min)

Markus Brunner; Wien / Austria

Oral cavity, oropharyngeal, and laryngeal cancer (15 min)

Minerva Becker; Geneva / Switzerland

Sino-nasal and nasopharyngeal cancer (15 min)

Ann Dorothy King; Hong Kong / China

Panel discussion: Is there a role for structured reporting in head and neck cancer staging? (10 min)





# RPS 1310 - New methods for imaging spine and nerves

Categories: Imaging Methods, Musculoskeletal, Neuro

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

ChristianW.A. Pfirrmann; Zurich / Switzerland

Paraspinal soft tissue assessment on CT as a predictor of posterior ligament complex injury in cervical spine trauma. (8

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Zerlene Lim; Birmingham / United Kingdom

Comparison between 2D TSE and 3D SPACE in the evaluation of craniocervical ligaments (8 min)

Bo-Mi Chung; Seoul / Korea, Republic of

Muscle mass index at the level of Th12 adjusted for the length of the thoracic spine as a prognostic factor for fatal outcomes among SARS-COV2 pneumonia patients (8 min)

Andrey Nikolaevich Bashkov; Moskow / Russia

Compliance with lumbar spine X-ray referral guidelines: a retrospective audit of practice at one hospital in East Dorset (UK) (8 min)

Dise Henrietta Ockri; London / United Kingdom

Ultrasonographic and shear-wave sonoelastographic findings of Achilles tendon in patients with seronegative spondyloarthropathy and their relationship with disease activity (8 min)

Leila Aghaghazvini; Tehran / Iran

The relative frequency of small vessel cerebrovascular disease and brain atrophy in MRI of patients with psoriasis (8 min)

Zahra Mahboubi; Tehran / Iran

Comparing the elastic moduli estimations of Siemens VTQ and VTIQ shear wave elastography technology (8 min)

Richard James Rendle; Exeter / United Kingdom

Qualitative and quantitative evaluation of sacroiliac MRI: can Dixon sequences replace standard protocol in diagnosis of sacroiliitis? (8 min)

Nur Betül Karatoprak (Demir); Malatya / Turkey

Intermediate-weighted MRI with fat suppression (IW-FS): good agreement with STIR in bone marrow oedema detection and improved erosion visualisation in axial spondyloarthritis (8 min)



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Min Chen; Shenzhen / China

Radiofrequency echographic multi spectrometry (REMS): ultrasonographic technology for bone health status assessment of the femur and spine (8 min)

Rossella Gifuni; San Paolo Bel Sito (NA) / Italy



# RC 1317 - Penetrating injuries: how to image the patient and which findings are most useful for patient management?

Categories: Abdominal Viscera, Emergency Imaging, General Radiology, Genitourinary, Interventional Radiology

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 10:30 - 11:30 CEST

**CME Credits:** 1

#### **Moderator:**

Mariano Scaglione; CastelVolturno / Italy

**Chairperson's introduction** (5 min) Mariano Scaglione; CastelVolturno / Italy

# Imaging approach in penetrating injuries (15 min)

Michael N. Patlas; Hamilton / Canada

# Subtle injuries in penetrating trauma (15 min)

Ken Linnau; Seattle, WA / United States

# The role of interventional radiology in penetrating trauma (15 min)

Francesco Giurazza; Salerno / Italy

Panel discussion: Which is the best imaging protocol to assess penetrating injuries and to plan the intervention? (10 min)



# E<sup>3</sup> 1319a - Prostate cancer screening, early detection, and individualised management: an interdisciplinary challenge

Categories: Abdominal Viscera, Genitourinary, Imaging Methods, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

#### Moderator:

Heinz-Peter Schlemmer; Heidelberg / Germany

#### Chairperson's introduction (2 min)

Heinz-Peter Schlemmer; Heidelberg / Germany

Screening and early detection of prostate cancer: the epidemiological and urologist's perspective (15 min)

Henk Van der Poel; Amsterdam / Netherlands

Management of early-stage prostate cancer: the oncologist's perspectives on individualised management (15 min)

Andrea Necchi; Milan / Italy

Opportunities, limitations, and pitfalls of imaging: the radiologist's perspective (15 min)

Heinz-Peter Schlemmer; Heidelberg / Germany

Multidisciplinary tumour board: case-based panel discussion and take home messages (43 min)

Heinz-Peter Schlemmer; Heidelberg / Germany



# E<sup>3</sup> 1319b - Breast lesions with uncertain malignant potential: a multidisciplinary approach

Categories: Breast, Imaging Methods, Multidisciplinary, Oncologic Imaging, Professional Issues

**ETC Level:** ALL LEVELS

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

#### **Moderator:**

Julia Camps Herrero; Valencia / Spain

**Chairperson's introduction** (2 min)

Julia Camps Herrero; Valencia / Spain

Detection of lesions of uncertain malignant potential: relation to imaging type and biopsy method, the radiologist's perspective (15 min)

Christiane K. Kuhl; Aachen / Germany

Pathological characterisation of lesions of uncertain malignant potential: how 'uncertain' is uncertain, the pathologist's perspective (15 min)

Carmen Anca Vlahu; Amsterdam / Netherlands

Should lesions of uncertain malignant potential always be excised? The breast surgeon's perspective (15 min)

Stuart Andrew A. McIntosh; Belfast / United Kingdom

Multidisciplinary tumour board: case-based panel discussions (43 min)

Julia Camps Herrero; Valencia / Spain

Carmen Anca Vlahu; Amsterdam / Netherlands



# E<sup>3</sup> 1320a - Pancreatic cystic lesions: a multidisciplinary approach

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Nikolaos Kartalis; Stockholm / Sweden

Chairperson's introduction (5 min)

The diagnostic algorithm for imaging diagnosis of cystic pancreatic lesions (15 min)

Evaluation of cystic pancreatic lesions: lessons from the gastroenterologist (15 min)

Thomas Seufferlein; Ulm / Germany

How to manage cystic pancreatic lesions: what the surgeon expects from the radiologist (15 min)

Elena Rangelova; Gothenburg / Sweden

Multidisciplinary tumour board: case-based panel discussion (40 min)



# E<sup>3</sup> 1320b - Klatskin tumours: current and emerging evidence

Categories: Abdominal Viscera, GI Tract, Interventional Oncologic Radiology, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

#### **Moderator:**

Filipe Caseiro Alves; Coimbra / Portugal

# Chairperson's introduction (5 min)

Filipe Caseiro Alves; Coimbra / Portugal

# Radiology for staging (15 min)

Filipe Caseiro Alves; Coimbra / Portugal

# Is my patient a good candidate for surgery? (15 min)

Guido Torzilli; Rozzano (Milan) / Italy

# Interventional options for extrahepatic cholangiocarcinoma (15 min)

Rafael Duran; Lausanne / Switzerland

#### Multidisciplinary tumour board: case-based panel discussion (40 min)

Filipe Caseiro Alves; Coimbra / Portugal



# E<sup>3</sup> 1321 - Neuroradiology: an update

Categories: Imaging Methods, Neuro, Oncologic Imaging, Paediatric Imaging, Vascular

ETC Level: LEVEL III

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Intracranial infection and inflammation** (45 min)

Paul M. Parizel; Perth / Australia

Imaging cranial nerves (45 min)

Jan Casselman; Brugge / Belgium



#### E<sup>3</sup> 1323 - Cardiac and vascular

Categories: Cardiac, Vascular

ETC Level: LEVEL I+II

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Marco Francone; Milan / Italy

Chairperson's introduction (6 min)

Marco Francone; Milan / Italy

Cardiovascular imaging: the basics (28 min)

Maja Hrabak Paar; Zagreb / Croatia

Cardiovascular imaging: myocardium and pericardium (28 min)

Jan Bogaert; Leuven / Belgium

Cardiovascular imaging: valves, endocardium, and aorta (28 min)

Christian Loewe; Vienna / Austria



## IIQ - Around the world in 80 minutes

Categories: Abdominal Viscera, Chest, General Radiology, Genitourinary, Musculoskeletal

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Yves Menu; Paris / France

**Introduction** (5 min) Yves Menu; Paris / France

Trip around the world (80 min)

Luca Maria Sconfienza; Milano / Italy Valdair Francisco Muglia; Ribeirao Preto / Brazil Annemiek Snoeckx; Zandhoven / Belgium Ahmed Ba-Ssalamah; Vienna / Austria

Conclusion (5 min)

Yves Menu; Paris / France



# OF 13a - ESR iGuide: clinical decision support for imaging referrals

Categories: EuroSafe Imaging/Radiation Protection, Evidence-Based Imaging, Imaging Informatics, Professional Issues

**ETC Level:** ALL LEVELS

Date: July 15, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

**Moderator:** 

Boris Brkljačić; Zagreb / Croatia

Chairperson's introduction (10 min)

Boris Brkljačić; Zagreb / Croatia

Medical imaging decision and support (MIDAS) study (10 min)

Thomas J. Kroencke; Augsburg / Germany

ESR iGuide pilot project CH Vic (10 min)

Marta Serrallonga Mercader; Vic / Spain

ESR iGuide implementation: National Guard Health Affairs (10 min)

Jacob Sosna; Jerusalem / Israel

Open forum discussion (20 min)



# E<sup>3</sup> 1318 - Gastrointestinal stromal tumours (GIST): a multidisciplinary approach

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

#### **Moderators:**

Daniele Regge; Torino / Italy Giovanni Grignani; Candiolo / Italy

### Chairpersons' introduction (5 min)

Daniele Regge; Torino / Italy Giovanni Grignani; Candiolo / Italy

## Systemic treatment of GIST: the oncologist (15 min)

Giovanni Grignani; Candiolo / Italy

## Surgical management of GIST: the surgeon (15 min)

William Allum; London / United Kingdom

## Imaging of GIST: the radiologist (15 min)

Andrea Laghi; Roma / Italy

## Multidisciplinary tumour board: case-based panel discussion (40 min)

Daniele Regge; Torino / Italy



# OF 13b - Research networking: connecting with other ESR members on research projects

Categories: Research ETC Level: LEVEL II

Date: July 15, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

#### **Moderators:**

Marc Dewey; Berlin / Germany Jaap Stoker; Amsterdam / Netherlands Aad Van Der Lugt; Rotterdam / Netherlands

### What to consider when designing research? (6 min)

Aad Van Der Lugt; Rotterdam / Netherlands

### How to improve research execution? (6 min)

Gabriel P. Krestin; Rotterdam / Netherlands

# Where will machine learning lead us? (6 min)

Marc Dewey; Berlin / Germany

## How to disseminate research results? (6 min)

Jaap Stoker; Amsterdam / Netherlands

**Discussion** (36 min)



# SF 13 - Palliative biliary drainage and stenting

Categories: Abdominal Viscera, GI Tract, Interventional Oncologic Radiology, Interventional Radiology, Multidisciplinary

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

#### **Moderator:**

Hans Ulrich Laasch; Manchester / United Kingdom

## **Chairperson's introduction** (5 min)

Hans Ulrich Laasch; Manchester / United Kingdom

## Indications for percutaneous transhepatic cholangiography (PTC), drainage, and stenting (30 min)

Carthage Moran; Cork / Ireland Owen J. O Connor; Cork / Ireland

#### Does stent choice matter? (18 min)

Hans Ulrich Laasch; Manchester / United Kingdom

## Complications of percutaneous transhepatic cholangiography and drainage (PTCD) and stenting (18 min)

Raman Uberoi; Oxford / United Kingdom

Panel discussion: Who should be in charge of palliative biliary decompression and how can the need for reintervention be minimised? (19 min)



# E<sup>3</sup> 1319c - Obscure gastrointestinal bleed: a multidisciplinary approach

Categories: Abdominal Viscera, Emergency Imaging, GI Tract, Interventional Radiology, Multidisciplinary

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Marc Jeffrey Gollub; New York / United States

Chairperson's introduction (2 min)

Marc Jeffrey Gollub; New York / United States

Obscure GI bleed, which imaging should I use? The radiologist's perspective (15 min)

How to manage: the gastroenterologist's perspective (15 min)

How to manage: the interventional radiologist's perspective (15 min)

Fernando Gomez Muñoz; Barcelona / Spain

Multidisciplinary tumour board: case-based panel discussion (40 min)

Marc Jeffrey Gollub; New York / United States Fernando Gomez Muñoz; Barcelona / Spain



# TF - Highlighted lectures on urological imaging

Categories: Genitourinary, Oncologic Imaging, Ultrasound

**ETC Level:** ALL LEVELS

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1

**Moderator:** 

Martin Reim; Tartu / Estonia

Chairperson's introduction (5 min)

Martin Reim; Tartu / Estonia

VI-RADS for bladder cancer (20 min)

Valeria Panebianco; Roma / Italy

Imaging acute scrotal pain (20 min)

Michele Bertolotto; Trieste / Italy

The role of CEUS in urogenital pathology (20 min)

Maija Radzina; Riga / Latvia

Panel discussion: The key elements of urogenital radiology (25 min)



# OF 13R - Top tips in ultrasound 1: gallbladder, biliary tree, and kidneys

Categories: Abdominal Viscera, Genitourinary, Physics in Medical Imaging, Radiographers, Ultrasound

Date: July 15, 2022 | 10:30 - 11:30 CEST

**Moderator:** 

Kevin Cronin; Dublin / Ireland

Gallbladder and biliary tree ultrasound: presentation, live scanning demonstration, and questions and answer (30 min)

Ruth Reeve; Fareham / United Kingdom

Renal ultrasound: presentation, live scanning demonstration, and questions and answers (30 min)

Aine Lunney; CAVAN / Ireland



# RPS 1304 - New insights into pulmonary abnormalities through advanced CT techniques

Categories: Chest, EuroSafe Imaging/Radiation Protection, Imaging Methods

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Benedikt H Heidinger; Vienna / Austria

Ultra-high-resolution photon-counting CT versus conventional HRCT of the lungs: a comparison of image quality and diagnostic impact (8 min)

Valerie Van Ballaer; Leuven / Belgium

Impact of photon-counting CT (PCCT) in the evaluation of interstitial lung disease (ILD): Preliminary experience in 29 patients (8 min)

Martine Rémy-Jardin; Lille / France

Image quality assessment of chest CT scans: Initial experiences with the first photon counting CT approved for clinical use (8 min)

Matthias Michael Woeltjen; Minden / Germany

Pattern recognition on ultra-low-dose CT to identify the aetiology of pneumonia (8 min)

Inge Alma Henrica Van Den Berk; Amsterdam / Netherlands

Are interstitial lung abnormalities a prognostic factor for worse outcomes in COVID-19 pneumonia? (8 min)

Davide Colombi; Piacenza / Italy

The next generation of reference books: combining content-based image retrieval with a knowledge-based diagnostic decision support system in chest CT (8 min)

Prerana Agarwal; Freiburg / Germany

Invasive pulmonary aspergillosis (IPA) in non-oncohematologic patients: differential radiological findings. (8 min)

Sofía Ventura Díaz; Madrid / Spain

Evaluation of additional silver filtration for ultra-low dose chest CT scans (8 min)

Luuk J. Oostveen; Nijmegen / Netherlands

Comparison of three digitally reconstructed radiograph models for ultra-low-dose CT images of the chest (8 min)

Olivier Paalvast; Amsterdam / Netherlands



# BUILDING BRIDGES JULY 13-17 | VIENNA

 $\textbf{Pulmonary tuberculosis in HIV: a study of computed tomography findings in relation to CD4 count} \ (8 \ \text{min})$ 

Sowmyashree K N; Kundapura / India





# RPS 1314 - Radiography service considerations: COVID-19, being green and patient-focussed

Categories: Imaging Methods, Management/Leadership, Professional Issues, Radiographers

Date: July 15, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

#### **Moderators:**

Moreno Zanardo; Milan / Italy Anagha P. Parkar; Bergen / Norway

Mobile X-rays and COVID-19: increased utilisation of mobile X-ray during COVID-19 and the effect on radiographer dose

(8 min)

Phoebe Yeung; Melbourne / Australia

The impact of the COVID-19 pandemic on 10 main public imaging services in Chile (8 min)

Marcelo Zenteno; Santiago / Chile

Professional quality of life of Nova Scotian medical radiation and imaging professionals highly willing to work during the COVID-19 pandemic: a study of compassion satisfaction and compassion fatigue (8 min)

Julie Avery; Halifax / Canada

An evaluation of the impact of the COVID-19 pandemic on the wellbeing of interventional radiographers in Ireland (8 min)

Michelle Laura Murphy; Cork / Ireland

Chest CT protocols in COVID-19 and its influence on radiation dose (8 min)

Margarida Carmo Pinto Ribeiro; Lisbon / Portugal

Breast cancer patient viewpoint versus staff thoughts regarding mammography and radiation therapy services (8 min)

Eija Metsälä Metsälä; Helsinki / Finland





# RPS 1301 - Inflammatory bowel disease and perianal fistula: what's new?

Categories: Artificial Intelligence & Machine Learning, GI Tract, Imaging Methods, Research, Ultrasound

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Gabriele Masselli; Rome / Italy

Radiomics as a tool to predict surgery at 10 years in Crohn's disease (8 min)

Antonio Bevere; Roma / Italy

Machine learning model incorporating computed tomography body composition features for predicting the response to mesalamine treatment in Crohn's disease (8 min)

Jinwei Zhang; Changsha / China

The development and value of magnetic resonance activity evaluation index without contrast agent injury in Crohn's disease (8 min)

Honghong Wu; Nan jing / China

Prediction of active inflammation in small intestinal Crohn's disease based on MRE imaging (8 min)

Honghong Wu; Nan jing / China

The utility of diffusion weighted images in Crohn's disease acute flare (8 min)

Kenan Alkhalili; Boston / United States

Submucosal fat accumulation in Crohn's disease: evaluation with sonography (8 min)

Rosa Garcia Dosda; Valencia / Spain

Contrast-enhanced ultrasound in the assessment of Crohn's disease activity: comparison with computed tomography enterography (8 min)

Shi-Si Ding; Shanghai / China

Optimizing MR enterography for inflammatory bowel disease: our initial experience in Shifa International Hospital (8 min)

Raana Kanwal; Lahore / Pakistan

Quantitative approach for assessment of bowel fibrosis in patients with Crohn's Disease (CD): MR-enterography (MRE) and DWI study (8 min)

Pavlo Osypenko; Київ / Ukraine



**Characterisation of anal fistula with scrotal extension on magnetic resonance imaging** (8 min) Chien Cong Phan; Ho Chi Minh city / Vietnam

**PH** sensitive, encapsulated, and natural oral contrast media for enterography exams: an in-vitro study (8 min) Oktay Algin; Ankara / Turkey



## RPS 1316 - Advanced imaging for oncology staging and follow-up

Categories: Artificial Intelligence & Machine Learning, Imaging Methods, Oncologic Imaging

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Marius E. Mayerhöfer; Vienna / Austria

A novel non-invasive approach to cancer of unknown primary: Al can detect CT morphological differences between primary tumours and metastases across tumour types (8 min)

Zuhir Elkarghali; Amsterdam / Netherlands

Magnetic resonance imaging (MRI) for staging melanoma patients in direct comparison to computed tomography (CT): results from a prospective positron-emission tomography PET/CT and PET/MRI study (8 min)

Cecilia Zhang; Tuebingen / Germany

Identification of early CT imaging response predictors after CAR T-cell therapy (8 min)

Michael Winkelmann; Munich / Germany

CT-based radiomics score of PET-negative residual CT Masses: a potential biomarker for the prediction of relapse-free survival in lymphoma patients showing complete metabolic response (8 min)

Seung Ha Cha; Seoul / Korea, Republic of

Preliminary whole-body MRI study for evaluation of minimal residual disease in a group of multiple myeloma patients

(8 min)

Valentina Angelini; Napoli / Italy

Ultra low dose whole-body computed tomography protocol optimisation for patients with plasma cell disorders: diagnostic accuracy and effective dose analysis from a reference centre (8 min)

Davide Tore; Asti / Italy

lodine quantification on multi-vendor DECT platforms: inter-scanner variability and impact of normalisation (8 min)

Simon Lennartz; Köln / Germany

Investigating the validity of computed tomography low dose simulations in a prospective intra-individual in-vivo real low dose animal study on a 3rd generation dual-source scanner (8 min)

Andreas Stefan Brendlin; Tübingen / Germany

Optimal keV in virtual monoenergetic imaging reconstructions for the detection of hypovascularized liver metastases on a novel photon counting dual-source CT scanner: initial experience (8 min)



Josua A. Decker; Augsburg / Germany

Feasibility and dose evaluation of a dynamic liver perfusion CT protocol with latest generation scanner (8 min) Federica Ullo; Torino / Italy

The affinity of Evans blue for necrotic tissue: a multimodal imaging study in animal models and preliminary investigation of the mechanism (8 min)

linpeng Yao; Hangzhou / China



## RPS 1305 - Artificial intelligence (AI) in chest imaging: part 2

Categories: Artificial Intelligence & Machine Learning, Chest, Imaging Informatics, Oncologic Imaging

Date: July 15, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

#### **Moderator:**

Guillaume Chassagnon; Paris / France

Overall survival prediction for stage II and stage III non-small cell lung cancer patients using a graph-based deep learning algorithm (8 min)

Varut Vardhanabhuti; Hong Kong / Hong Kong SAR China

A laboratory-medicine-like approach to the analysis of unremarkable chest radiographs using artificial intelligence (8 min)

Thomas Weikert; Basel / Switzerland

Deep learning universal lesion segmentation for automated RECIST measurements on CT: comparison to manual assessment by radiologists (8 min)

Max Jacobus Johannes De Grauw; Velp (GE) / Netherlands

Lightweight techniques to improve generalisability of U-Net based segmentations of lung lobes (8 min)

Armin Dadras; Offenbach / Germany

Development and validation of a machine learning based CADx designed to improve patient management in lung cancer screening programmes (8 min)

Charles Michael Voyton; Valbonne / France

First performance evaluation of an artificial intelligence-based computer aided detection system for pulmonary nodule evaluation in dual source photon-counting detector CT at different low dose levels (8 min)

Lisa Jungblut; Zürich / Switzerland

Reducing clinical chest X-ray reading times by using artificial intelligence to stratify worklists into normal/abnormal categories (8 min)

K.F.M. Hergaarden; Leiden / Netherlands

Development of a deep learning-based model for chest X-ray quality assessment (8 min)

Rémi Khansa; Taissy / France

Al model uncertainty for detecting pneumothorax on chest radiographs is a strong predictor for annotator confidence (8 min)



Omar Hertgers; Den Haag / Netherlands

Impact of a content-based image retrieval system on the interpretation of chest CTs of patients with diffuse parenchymal lung disease (8 min)

Sebastian Röhrich; Vienna / Austria

CAD significantly increases the accuracy of pulmonary nodule detection in both concurrent and second reader paradigms (8  $\min$ )

Yiyuan Zhao; Malvern / United States





# **CUBE 14 - Case studies presented through quiz**

**Categories:** Interventional Radiology **Date:** July 15, 2022 | 10:30 - 11:00 CEST

CME Credits: 0.5

Quiz (30 min)

Salvatore Alessio Angileri; Milano / Italy



# IF 13 - Physische Stärkung

Categories: Management/Leadership, Multidisciplinary, Professional Issues

Date: July 15, 2022 | 11:00 - 12:00 CEST

CME Credits: 1

**Moderator:** 

Judith Tscheppe; Vienna / Austria

Fit und aufmerksam im Alltag (15 min)

Flavia Lattermann; Vienna / Austria

Seelische und psychische Stärkung durch Nahrungsergänzungsmittel (10 min)

Georg Sprinzl; Vienna / Austria

Interview: Schulmedizin und Magnetismus - ein unschlagbares Team (10 min)

Annemarie Schratter-Sehn; Vienna / Austria

Judith Tscheppe; Vienna / Austria

Take your WINX and fly: Breite deine Flügel aus und flieg (15 min)

Florian Fitzal; Austria

Caroline Justich; Vienna / Austria

Schreibe, um deine Seele zu treffen (10 min)

Evelyn Steinthaler; Vienna / Austria



# Al 12 - Explainable Al

Categories: Artificial Intelligence & Machine Learning

Date: July 15, 2022 | 12:00 - 13:00 CEST

**Moderator:** 

Wim Van Hecke; icometrix / Belgium

Introduction (3 min)

Wim Van Hecke; Icometrix / Belgium

Explainable AI (42 min)

Bas H.M. Van der Velden; Utrecht / Netherlands

**Q&A** (15 min)



# IF 14b - Zucker versus intelligenter Zucker: Nahrung zu seinen Gunsten nützen!

Categories: Management/Leadership, Multidisciplinary, Professional Issues

Date: July 15, 2022 | 12:15 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Caroline Justich; Vienna / Austria

Geführte Meditation (10 min)

Gesundheit durch die Kraft der Nahrung: TCM und Ernährung als Begleitung in Heilungsprozessen (10 min)

Michael Puntigam; Vienna / Austria

Bedeutung des Blutzuckers für Krankheiten (35 min)

Johannes Coy; Monheim / Germany

Diskussion: Wie kann man Nahrung gezielt nutzen? Warum hat die Verwendung von intelligentem Zucker einen wesentlichen Einfluss auf die Gesundheit? (20 min)



### NTC 3 - The Event

**Categories:** Interventional Radiology **Date:** July 15, 2022 | 12:15 - 13:30 CEST

Patient identification and follow-up (25 min)

Andrea Antonio Ianniello; Saronno / Italy

Virtual reality in IO: applications (25 min)

Ejona Duka; Varese / Italy

Epic fails and creative solutions (25 min)

Gianpaolo Carrafiello; Milan / Italy



#### RPS 1403 - 4D flow in cardiac MR

Categories: Cardiac, Imaging Methods, Physics in Medical Imaging, Vascular

Date: July 15, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Silvia Pradella; Firenze / Italy

Background phase correction in MR compressed sensing 4D flow (8 min)

Gert Reiter; Graz / Austria

Automated estimation of mean pulmonary arterial pressure from 4D-flow MRI (8 min)

Corina Kräuter; Graz / Austria

Scan-rescan repeatability of MR compressed sensing 4D flow assessment of aortic and pulmonary flow volumes (8 min)

Ursula Reiter; Graz / Austria

Compressed sensing 4D flow assessment of left ventricular flow components (8 min)

Clemens Reiter; Graz / Austria

Comprehensive assessment of haemodynamics before and after aortic valve replacement in an ex-vivo swine model with 4D flow MRI (8 min)

Maren Friederike Balks; Lübeck / Germany

4D flow MRI for quantification of aortic regurgitation (8 min)

Fraj Bouhajja; Paris / France

Left atrial volume evaluation from MR 4D-flow data (8 min)

Clemens Reiter; Graz / Austria



# OF 14R - Top tips in ultrasound 2: common emergency musculoskeletal referrals

Categories: Emergency Imaging, Musculoskeletal, Physics in Medical Imaging, Radiographers, Ultrasound

Date: July 15, 2022 | 12:30 - 13:30 CEST

**Moderator:** 

Dearbhla Kearney; Dublin 6 / Ireland

Achilles' tendon: presentation, live scanning demonstration, and questions and answers (30 min)

Kevin Cronin; Dublin / Ireland

Shoulder: presentation, live scanning demonstration, and questions and answers (30 min)

Kevin Cronin; Dublin / Ireland



# RPS 1414 - How radiography work practices and personal wellbeing have been impacted by COVID-19

Categories: Education, Management/Leadership, Professional Issues, Radiographers

Date: July 15, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

#### **Moderators:**

Mark F. F. McEntee; Cork / Ireland Jean-François Meder; Paris / France

Radiographers from the frontline: the COVID-19 pandemic's effect on professionals' burnout and occupational stress level (8 min)

Dávid Sipos; Kaposvár / Hungary

UK obstetric sonographers' experiences of the Covid-19 pandemic: burnout, role satisfaction and impact on clinical practice (8 min)

Emily Skelton; London / United Kingdom

The gendered impact of the Covid-19 pandemic on medical imaging and radiation therapy academics (8 min)

Katie O'Donoghue; Cork / Ireland

Impact of the COVID-19 pandemic on the radiology department of a university hospital in Northern Italy (8 min)

Andrea Roletto; Milan / Italy

The experiences of diagnostic radiographers through the Covid-19 pandemic (8 min)

Ruth Mary Strudwick; Ipswich / United Kingdom

Organisational and occupational commitment among Australian radiographers journeying through COVID-19 (8 min)

Chandra Makanjee; Bruce / Australia



# RT 14 - Building bridges: how to be successful in multidisciplinary research

Categories: Education, Management/Leadership, Multidisciplinary, Professional Issues, Research

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 12:30 - 13:30 CEST

#### **Moderators:**

Valérie Vilgrain; Clichy / France Boris Brkljačić; Zagreb / Croatia

## Chairpersons' introduction (2 min)

Valérie Vilgrain; Clichy / France Boris Brkljačić; Zagreb / Croatia

# How do I start and successfully run a multidisciplinary clinical research (15 min)

Valérie Vilgrain; Clichy / France

## Discussion (43 min)

Luis Marti-Bonmati; Valencia / Spain

Carlo Catalano; Roma / Italy

Alberto Spinazzi; Monroe Township / United States



# OF 14Y - Meet the professors: part 3

Categories: Education, General Radiology, Management/Leadership, Professional Issues, Students

**ETC Level:** ALL LEVELS

Date: July 15, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Saif Afat; Tübingen / Germany

Chairperson's introduction (5 min)

Saif Afat; Tübingen / Germany

Making the most of opportunities: what I have learnt (20 min)

Evis Sala; Rome / Italy

Why to become a radiologist in 2022?: my personal view (20 min)

Andrea Laghi; Roma / Italy

**Discussion** (15 min)



# OF 14b - Collaborating on research: how can I get involved in ESR research activities?

Categories: Research ETC Level: LEVEL I

Date: July 15, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Marc Dewey; Berlin / Germany

**Research Seed Grantees 2020** 

Our joint approach with subspecialty and national societies to collaboration in research (10 min)

Jaap Stoker; Amsterdam / Netherlands

Reliability of cardiothoracic ratio as an estimate of cardiac enlargement compared to gold standard MRI parameters (1

min)

Monika Radikė; Liverpool / United Kingdom

RISK - Risk Maps using T2 mapping and Diffusion MR Sequences of the Prostate (1 min)

Liliana Caldeira; Cologne / Germany

MRI-assessed myocardial deformation of the systemic right ventricle in patients with transposition of the great arteries (1 min)

Maja Hrabak Paar; Zagreb / Croatia

Al-driven MR-based imaging of tumor hypoxia (1 min)

Ieva Kurilova; Amsterdam / Netherlands

Spatio-temporal cardiac motion patterns in the non-invasive diagnosis of myocarditis (1 min)

Fabian Christopher Laqua; Estenfeld / Germany

Optimization and validation of highly accelerated compressed sensing whole-heart 4D-Flow imaging (1 min)

Clemens Reiter; Graz / Austria

CT-based radiomics analysis in patients with intraductal papillary mucinous neoplasm (IPMN) of the pancreas (1 min)

David Tobaly; Neuilly-sur-Seine / France

Integration of a Retina U-Net algorithm for the automated detection of primary lung cancer in clinical workflows (1 min)



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Thomas Weikert; Basel / Switzerland

Research Grantee 2022 Awards (5 min)

Marc Dewey; Berlin / Germany

Gabriel P. Krestin; Rotterdam / Netherlands Marion Smits; Rotterdam / Netherlands

Panel discussion: Ask all the questions you never dared to ask! (37 min)



# OF 14a - One year fellowship: what is the gaining - tips and tricks to extract the perfume

**Categories:** Education **ETC Level:** LEVEL I+II

Date: July 15, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

#### **Moderator:**

Stéphanie Franchi-Abella; Le Kremlin-Bicêtre / France

# Chairperson's introduction (5 min)

Stéphanie Franchi-Abella; Le Kremlin-Bicêtre / France

## One year fellowship: what is the gaining (25 min)

Stephanie Nougaret; St Clement de Riviere / France

## Tips and tricks to extract the perfume (15 min)

Mathias Prokop; Nijmegen / Netherlands

Open forum discussion (15 min)



# Meets 14 - Radiology vs artificial intelligence (AI) in China

Categories: Artificial Intelligence & Machine Learning, Chest, Neuro, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

#### **Moderators:**

Adrian Brady; Cork / Ireland Liu Shiyuan; Shanghai / China

## Welcome and introduction (10 min)

Adrian Brady; Cork / Ireland Liu Shiyuan; Shanghai / China

## Current status and challenge of Al application in radiology in China (20 min)

Liu Shiyuan; Shanghai / China

# Application of AI in lung disease (10 min)

Li Fan; SHANGHAI / China

## Application of AI in cerebrovascular disease: perspective from China (10 min)

Long Jiang Zhang; Nanjing / China

## Application of AI in tumour management (10 min)

Zaiyi Liu; Guangzhou / China



# IF 14a - The future relationship between radiologist and patient: what do we want to see?

Categories: Artificial Intelligence & Machine Learning, General Radiology, Multidisciplinary, Professional Issues

Date: July 15, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

#### **Moderators:**

Lorenzo E. Derchi; Genoa / Italy Matti Aapro; Genolier / Switzerland

Introduction (10 min)

Lorenzo E. Derchi; Genoa / Italy

## Oncologist and radiologist: all hands on the tumour (10 min)

Matti Aapro; Genolier / Switzerland

Patient view: what do patients expect and patient rights (15 min)

Cheryl Cruwys; Haute Vienne / France

Panel discussion: How can we change the role of the radiologist to integrate them more in patient care/outpatient clinics? (25 min)

Dominique-Gérard Carrie; Balma / France





# E<sup>3</sup> 30C - Cerebral manifestations of systemic diseases

Categories: Abdominal Viscera, Chest, Imaging Methods, Neuro, Oncologic Imaging

ETC Level: LEVEL I+II

Date: July 15, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Carlo Augusto Mallio; Roma / Italy

Metabolic and toxic encephalopathies and myelopathies (20 min)

Massimo Caulo; Pescara / Italy

Granulomatous disorders (20 min)

Intracranial metastases revisited (20 min)

Arian Lasocki; Melbourne / Australia



# E<sup>3</sup> 25D - Cystic neoplasms

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Oncologic Imaging

ETC Level: LEVEL I+II

Date: July 15, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Riccardo Manfredi; Roma / Italy

**Intraductal papillary neoplasms** (30 min) Byung Ihn Choi; Seoul / Korea, Republic of

Other cystic pancreatic neoplasms (30 min)

Giulia Zamboni; Verona / Italy



## E<sup>3</sup> 24D - MSK infection: what are the clues?

Categories: General Radiology, Imaging Methods, Musculoskeletal, Neuro

ETC Level: LEVEL |+||

Date: July 15, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Franz Kainberger; Vienna / Austria

Long bones (18 min)

Joan C. Vilanova; Girona / Spain

Joints (18 min)

Josef Kramer; Linz / Austria

Spine (18 min)

Anne Cotten; Lille / France

Panel discussion (6 min)



# E<sup>3</sup> 1520 - Staging pancreatic adenocarcinoma: a multidisciplinary approach

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Giulia Zamboni; Verona / Italy

Chairperson's introduction (5 min)

Giulia Zamboni; Verona / Italy

Resection or not: what the surgeon expects from the radiologist (15 min)

Elena Rangelova; Gothenburg / Sweden

Clinical practice guidelines for patient management: the oncologist's perspective (15 min)

Andres Cervantes; Valencia / Spain

**Preoperative and chemotherapy response assessment** (15 min)

Giulia Zamboni; Verona / Italy

Multidisciplinary tumour board: case-based panel discussion (40 min)

Giulia Zamboni; Verona / Italy



# Al 14 - Al beyond Radiology Image Analysis

Categories: Artificial Intelligence & Machine Learning

Date: July 15, 2022 | 14:00 - 15:00 CEST

#### **Moderator:**

Alexander Boehmcker; Barcelona / Spain

#### Introduction (3 min)

Alexander Boehmcker; Barcelona / Spain

# Panel Discussion (57 min)

Raym Geis; Fort Collins / United States Ana Jimenez-Pastor; Valencia / Spain Felix Nensa; Essen / Germany Jonas Teuwen; Amsterdam / Netherlands



# SA 15 - Immunotherapy for cancer: do patients need targeted imaging?

Categories: Artificial Intelligence & Machine Learning, Chest, Hybrid Imaging, Molecular Imaging, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Clarisse Dromain; Lausanne / Switzerland

**Chairperson's introduction** (5 min)

Gary Cook; London / United Kingdom

Immunotherapy: an oncologist's view (18 min)

Dirk DeRuysscher; Maastricht / Netherlands

Standard imaging: limitations in assessing immunotherapy? (18 min)

Clarisse Dromain; Lausanne / Switzerland

Molecular and hybrid imaging: what should we target? (18 min)

Egesta Lopci; Rozzano / Italy

Predicting response to cancer immunotherapy using radiomics and artificial intelligence (18 min)

Stefano Trebeschi; Amsterdam / Netherlands

Panel discussion: Is targeted imaging and artificial intelligence the way forward to personalising cancer care with immunotherapy? (13 min)



# **CUBE 15 - Artificial intelligence in Interventional Oncology**

**Categories:** Interventional Radiology **Date:** July 15, 2022 | 14:00 - 14:30 CEST

CME Credits: 0.5

Artificial intelligence in Interventional Oncology (30 min)

Martina Gurgitano; Eboli / Italy



### SF 15 - Strategy for primary diagnosis of prostate cancer

Categories: Genitourinary, Hybrid Imaging, Imaging Methods, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Bernd Hamm; Berlin / Germany

Chairperson's introduction (5 min)

Bernd Hamm; Berlin / Germany

Unmet clinical needs in prostate cancer (18 min)

Henk Van der Poel; Amsterdam / Netherlands

The new role of ultrasound (18 min)

Jean Michel Correas; Paris / France

Current and future role of multiparametric MRI (mpMRI) (18 min)

Heinz-Peter Schlemmer; Heidelberg / Germany

PSMA applicability and potential developments in primary diagnosis and characterisation of prostate cancer (18 min)

Irene Burger; Zürich / Switzerland

Panel discussion: From turf battles by evidence to joint patient care (13 min)



#### RPS 1505 - Artificial intelligence (AI) in neuroimaging

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Neuro

Date: July 15, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Sotirios Bisdas; London / United Kingdom

Real-life evaluation of the Al-based neuroradiology suite mdbrain (8 min)

Jens Ruediger Opalka; Berlin / Germany

Comparison of 3 deep learning models to perform a multiclass CT-scan segmentation of traumatic brain lesions: trained from scratch vs pre-trained vs fine-tuned (8 min)

Clément Brossard; Villeurbanne / France

Deep learning super-resolution MR spectroscopic imaging of brain metabolism and mutant IDH glioma (8 min)

Ovidiu Andronesi; Charlestown / United States

A deep learning algorithm for the automatic detection of intracranial haemorrhage on CT head imaging (8 min)

Melissa Yeo; Melbourne / Australia

Preoperative magnetic resonance imaging radiomics for predicting early recurrence of glioblastoma (8 min)

Xiaoping Yi; Changsha / China

Convolutional neural network-based segmentation of the posterior limb of the internal capsule correlates with motor outcome in very preterm neonates (8 min)

Malik Galijašević; Innsbruck / Austria

Application of automatic segmentation on super-resolution reconstruction MRI images of the abnormal fetal brain (8 min)

Thomas Deprest; Heusden-Zolder / Belgium

Automated detection of MCI to Alzheimer's disease conversion before clinical onset by evaluation of atrophy rates (8

min)

Tobias Lindig; Tübingen / Germany

Al-based prediction of onset of intracerebral hemorrhage: potential and limits (8 min)

Thilo Rusche; Basel / Switzerland



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Introduction of MRI-based AI model in prediction of MCI conversion to dementia: could it be a key to early diagnosis of Alzheimer's disease? (8 min)

Wooseok Jung; Seoul / Korea, Republic of

Comparative performance of Al algorithm using MRI for the diagnosis of Alzheimer's disease: can MRI replace PET? (8 min)

Wooseok Jung; Seoul / Korea, Republic of



#### RPS 1502 - Early diagnosis and breast lesions characterisation

Categories: Artificial Intelligence & Machine Learning, Breast, Contrast Media, Imaging Methods, Nuclear Medicine

Date: July 15, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

#### **Moderator:**

Elisabetta Breast Giannotti; nottingham / United Kingdom

Simultaneous multiparametric [18F]-fluoroethylcholine PET-MRI for the diagnosis of breast cancer (8 min)

Paola Clauser; Vienna / Austria

Dynamic contrast-enhanced MRI and intravoxel incoherent motion diffusion-weighted imaging for predicting breast cancer recurrence (8 min)

WanChen Tsai; Taipei / Taiwan, Chinese Taipei

A machine learning (ML) ensemble based on radiomics to reduce the biopsy rate of ultrasound-detected suspicious breast masses (8 min)

Veronica Magni; Milan / Italy

Evaluation of a deep learning-based artificial intelligence system for breast asymmetry detection (8 min)

Lin Li; Shenzhen / China

Breast composition may predict breast cancer features and cancer-specific survival (8 min)

Ernest Usang Ekpo; Sydney / Australia

Radiomics-based machine learning model improves the characterisation of BI-RADS category 4 lesions on multiparametric breast MRI (8 min)

Shuang Zhao; Chengdu / China

Breast cancer in pregnancy and lactation: our experience and review of the literature (8 min)

Lisett Cruzado Quiroz; Lima / Peru

Digital breast tomosynthesis combined with contrast-enhanced spectral mammography helps reveal anatomic causes of artefacts and benign enhancing findings on subtracted contrast images. (8 min)

Olena Weaver; Houston / United States

An effective approach for breast tumour segmentation based on Mask R-CNN architecture (8 min)

Nasim Sirjani; Tehran / Iran



# BUILDING BRIDGES JULY 13-17 | VIENNA

ECR2022

Comparison of artificial intelligence computer-aided detection enhanced synthesised mammograms versus original digital mammograms alone and in combination with tomosynthesis images (8 min)

Takayoshi Uematsu; Shizuoka / Japan





#### RPS 1503 - Coronary artery CT for diagnosis and prognosis

Categories: Artificial Intelligence & Machine Learning, Cardiac, Contrast Media, Hybrid Imaging, Multidisciplinary

Date: July 15, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Galit Aviram; Tel-Aviv / Israel

Coronary CTA versus functional testing for the diagnosis of obstructive coronary artery disease: results from the collaborative meta-analysis of Cardiac CT (COME-CCT) (8 min)

Viktoria Wieske; Berlin / Germany

Atherosclerotic plaque characteristics and their dynamics assessed by CT angiography in patients with acute coronary syndrome (8 min)

Alina Semenova; Moscow / Russia

Usefulness and clinical implications of plaque analysis and pFAI for the evaluation of cardiovascular risk (8 min) Giulio Cabrelle; Padua / Italy

Can super resolution deep learning reconstruction upgrade the atheroma burden in CAD-RAS 0-2 patients? (8 min) Mickaël Ohana; Schiltigheim / France

Levels of troponin T may predict the overall plaque burden of patients with chronic coronary syndrome (8 min) Milán Vecsey-Nagy; Budapest / Hungary

Association between coronary artery disease and clinical outcome in cancer patients: a propensity score matching analysis (8 min)

Zengfa Huang; Wuhan / China

Myocardial late contrast enhancement in patients presenting with acute chest pain syndrome: focus on obstructive coronary artery disease (8 min)

Davide Vignale; Milan / Italy

Prevalence and extent of mitral annular dysjunction in a normal population: a comprehensive morphometric analysis on CT coronary angiography (8 min)

Smily Sharma; Amritsar / India



### OF 15b - Image collection: opportunities for succeeding in imaging research

Categories: Breast, Imaging Informatics, Management/Leadership, Oncologic Imaging, Research

ETC Level: LEVEL II

Date: July 15, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

#### **Moderators:**

Gabriel P. Krestin; Rotterdam / Netherlands

Katrine Riklund; Umeå / Sweden

#### Chairperson's introduction (5 min)

Gabriel P. Krestin; Rotterdam / Netherlands

Magnetic resonance imaging before breast cancer surgery: results of an observational multicentre international prospective analysis (MIPA) (15 min)

Francesco Sardanelli; San Donato Milanese, Milan / Italy

EIBIR Imaging Biobank Catalogue: find and identify datasets for imaging research (15 min)

Andrea Gutierrez; Rotterdam / Netherlands

Succeeding in imaging research with help from EIBIR (10  $\min$ )

Peter Gordebeke; Vienna / Austria

Open forum discussion (15 min)



### E<sup>3</sup> 1531 - Lung cancer: a multidisciplinary approach in real life

Categories: Chest, Interventional Oncologic Radiology, Multidisciplinary, Oncologic Imaging, Translational Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Helmut Prosch; Vienna / Austria

Chairperson's introduction (5 min)

Helmut Prosch; Vienna / Austria

Treatment pathways in advanced stage lung cancer: thoracic oncologist (10 min)

Nicolas Girard; Paris / France

Diagnosis, staging, and restaging of lung cancer after immunotherapy (15 min)

Helmut Prosch; Vienna / Austria

Radiological treatment of lung cancer: interventional oncology (15 min)

Carole Ridge; Dublin / Ireland

Multidisciplinary tumour board: case-based panel discussion (45 min)

Helmut Prosch; Vienna / Austria Alireza Hoda; Vienna / Austria Joachim Widder; Vienna / Austria Thorsten Füreder; Vienna / Austria



#### RPS 1511 - Acute stroke

Categories: Imaging Methods, Interventional Radiology, Neuro, Vascular

Date: July 15, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Saif Afat; Tübingen / Germany

Cost-effectiveness of endovascular thrombectomy in childhood stroke: an analysis of the Save ChildS Study (8 min)

Wolfgang Gerhard Gerhard Kunz; Munich / Germany

Prevalence and clinical outcome of remnant occlusion at superior cerebellar artery after mechanical thrombectomy for basilar artery occlusion (8 min)

Byung Hyun Baek; Gwangju / Korea, Republic of

Altered resting state cerebral blood flow, functional connectivity strength and neurovascular coupling in patients with pontine infarction (8 min)

Ying Wei; Henan / China

Clinical utility of arterial spin labelling perfusion images in the emergency department for the work-up of stroke-like symptoms (8 min)

Karen Buch; Boston / United States

Assessment of MR perfusion software packages in predicting final infarct volume after mechanical thrombectomy (8

min)

Alexandre Bani Sadr; Lyon / France

Intracranial carotid artery calcification subtype and collaterals in patients undergoing endovascular thrombectomy (8

min)

Sven Luijten; Rotterdam / Netherlands

Is the optimal Tmax threshold identifying perfusion deficit volumes variable across MR perfusion software packages? A pilot study (8 min)

Alexandre Bani Sadr; Lyon / France

Value of CT perfusion imaging in outcome prediction in patients with basilar artery occlusion (8 min)

Matthias Philipp Fabritius; Munich / Germany

Haemorrhagic transformation rates following contrast media administration in patients hospitalised with ischaemic stroke (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

ECR 2022

Franklin G Moser; Los Angeles / United States



### RT 15 - Building bridges: the role of the radiologist in 2030

Categories: Education, General Radiology, Management/Leadership, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

#### **Moderators:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands Adrian Brady; Cork / Ireland

#### Chairpersons' introduction (2 min)

Regina G. H. Beets-Tan; Amsterdam / Netherlands Adrian Brady; Cork / Ireland

#### The new role of the radiologist: report from the ESR survey (13 min)

Andrea Grace Rockall; Godalming / United Kingdom

# Panel discussion: Radiology in 2030: how will we need to practice adding value to the patient? (45 min)

Andrea Grace Rockall; Godalming / United Kingdom Emile Voest; Amsterdam / Netherlands Geerard L. Beets; Amsterdam / Netherlands Gilliosa Spurrier-Bernard; TEILHET / France

Emanuele Neri; Pisa / Italy



# RPS 1514 - The impact of software and technology advances for radiographic practice

Categories: Artificial Intelligence & Machine Learning, Education, Imaging Methods, Professional Issues, Radiographers

Date: July 15, 2022 | 14:00 - 15:00 CEST

**CME Credits:** 1

#### **Moderators:**

Jaka Potočnik; Dublin / Ireland Luís Donoso Bach; Barcelona / Spain

Evaluation of European based radiographers' knowledge and attitude towards implementation of Artificial Intelligence in radiography (8 min)

Sarah Coakley; Cork / Ireland

Artificial Intelligence: Society of Radiographers UK professional guidance (8 min)

Tracy Jane Tracy O'Regan; Rochdale / United Kingdom

Radiographers' perceptions of the impact of artificial intelligence on radiology (8 min)

Vitale Floriana; NA / Italy

AIRx: augmenting the teaching of radiography using artificial intelligence (8 min)

Jerome Schmid; Geneva / Switzerland

Experiences of students and educators related to a postgraduate introductory module in artificial intelligence for radiographers (8 min)

Christina Malamateniou; London / United Kingdom

3D-printed heart phantoms for automatic measurement of left ventricular volume (8 min)

Martin Weber Kusk; Esbjerg / Denmark



#### RPS 1509 - Percutaneous non-vascular interventions: minimal invasive and maximal effective

Categories: Interventional Oncologic Radiology, Interventional Radiology, Multidisciplinary, Oncologic Imaging, Research

Date: July 15, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

#### **Moderator:**

Thomas Albrecht; Berlin / Germany

Improved visualisation of hepatic tumours in magnetic resonance guided thermoablation using T1 inversion-recovery imaging compared to T1 volume-interpolated breath-hold sequence (8 min)

Jens Kuebler; Tübingen / Germany

Clinical application value of contrast-enhanced ultrasonography after microwave ablation of thyroid nodules (8 min) shuainan shi; Shanghai / China

Novel needle-guiding robotic system for percutaneous minimally invasive procedures: a technical feasibility study (8 min)

Jurgen J. Futterer; Nijmegen / Netherlands

The role of volumetric assessment in predicting the success of percutaneous transhepatic biliary drainage in inoperable Klatskin tumours (8 min)

Gülsüm Kübra Bahadır; ANKARA / Turkey

Risk of persistent air leaks following percutaneous cryoablation and microwave ablation of peripheral lung tumours: a bi-institutional retrospective study (8 min)

Florian J. Fintelmann; Boston / United States

**US-CT fusion-guided percutaneous radiofrequency ablation of large substernal benign thyroid nodules** (8 min) Umberto Viglino; Genoa / Italy

MRI-guided transurethral ultrasound ablation (TULSA) for the treatment of benign prostatic hyperplasia: early outcomes (8 min)

Cameron Wright; Hamburg / Germany

**12-month functional and oncological outcomes of salvage TULSA for localised radio-recurrent prostate cancer** (8 min) Cameron Wright; Hamburg / Germany

**Percutaneous tumour ablation guided by electromagnetic navigation system: a retrospective study** (8 min) Sofía Ventura Díaz; Madrid / Spain



Multi-institutional study on safety and effectiveness of percutaneous RF, MW and cryo-ablation for T1 renal cancers: which is the best imaging guide? (8 min)

Lorenzo Bertolotti; PARMA / Italy

Efficacy of contrast-enhanced ultrasound-guided percutaneous core needle biopsy in anterior mediastinal masses (8 min)

Pei-li Fan; Shanghai / China



#### RPS 1512 - Imaging the paediatric chest and abdomen: optimisation and future perspectives

Categories: Abdominal Viscera, Artificial Intelligence & Machine Learning, Chest, Genitourinary, GI Tract, Paediatric Imaging

Date: July 15, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Dilyana Baleva; Mistelbach / Austria

Ultrasound-guided percutaneous renal biopsy in paediatric population (8 min)

Aleksandar Zafirovski; Kočevje / Slovenia

Impact of improved protocol on the percutaneous renal biopsy complications in children (8 min)

Aleksandar Zafirovski; Kočevje / Slovenia

Static and functional MR urography as a comparison with renal scintigraphy in paediatric patients (8 min)

Seckin Cobanoglu; Istanbul / Turkey

MaRIA and Clermont MR enterography indices correlate with degree of mucosal healing in paediatric Crohn's disease (8

Maria Gladkikh; Vaughan / Canada

Semi-quantitative and quantitative assessment of multiphase contrast-enhanced MRI and diffusion-weighted imaging in paediatric Crohn's disease (8 min)

Maria Gladkikh; Vaughan / Canada

Reference ranges of age based portal vein, renal vein and vena cava inferior size in children in conjunction with waist circumference (8 min)

Zuhal Bayramoglu; İstanbul / Turkey

Development of deep-learning Al algorithm for detecting ileocolic intussusception on ultrasonography in children (8

Jae-Yeon Hwang; Yangsan-si / Korea, Republic of

The role of Doppler waveform indices of the foetal main pulmonary artery in the prediction of neonatal respiratory distress syndrome - a prospective cohort study (8 min)

Arjun Prakash; Bengaluru / India

Scoping review of the utilisation of lung ultrasound in paediatric COVID-19 (8 min)

Yusuf Syaeful Nawawi; Surakarta / Indonesia



# BUILDING BRIDGES JULY 13-17 | VIENNA

Automated airway-artery analysis in evaluating the effect of inhaled hypertonic saline in preschool children with cystic fibrosis (8 min)

Yuxin Chen; Rotterdam / Netherlands

Diagnostic accuracy of ultrasound for confirmation of peripherally inserted central catheter tips (PICC's) in infants in the neonatal intensive care unit (NICU) - a systematic review and meta-analysis (8 min)

Shauna Claire Doyle; Cork / Ireland





# OF 15R - Top tips in ultrasound 3: thyroid and lower extremity venous ultrasound

Categories: Emergency Imaging, Physics in Medical Imaging, Radiographers, Ultrasound, Vascular

Date: July 15, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

**Moderator:** 

Ruth Reeve; Fareham / United Kingdom

Thyroid ultrasound: presentation, live scanning demonstration, and questions and answers (30 min)

Gerry Johnson; Manchester / United Kingdom

Lower extremity venous ultrasound: presentation, live scanning demonstration, and questions and answers (30 min)

Gerald Orpen; Dublin / Ireland



### **OF 15Y - Communication with patients**

Categories: Education, Multidisciplinary, Professional Issues, Research, Students

ETC Level: LEVEL I

Date: July 15, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

#### **Moderators:**

Erik Briers; Brussels / Belgium

Cheryl Cruwys; Haute Vienne / France

Introduction (5 min)

Erik Briers; Brussels / Belgium

What radiologists, young and old, need to know about patients' expectations (10 min)

Cheryl Cruwys; Haute Vienne / France Dominique-Gérard Carrie; Balma / France

 $\textbf{Tips and tricks for young radiologists in communication with patients: a clinical radiologist experience (10 \min) and tricks for young radiologists in communication with patients: a clinical radiologist experience (10 \min) and tricks for young radiologists in communication with patients: a clinical radiologist experience (10 min) and tricks for young radiologists in communication with patients: a clinical radiologist experience (10 min) and tricks for young radiologists in communication with patients: a clinical radiologist experience (10 min) and tricks for young radiologists in communication with patients: a clinical radiologist experience (10 min) and tricks for young radiologists exp$ 

Dominique-Gérard Carrie; Balma / France

 $\textbf{The important role of a radiologist as an innovative gatekeeper and how their workflow can be improved (10 \, \text{min})}$ 

Judy Birch; Poole / United Kingdom

Panel discussion: To communicate or not to communicate: are we satisfied with the level and quality of communication with patients and radiologists in the radiology department? (25 min)



### RC 1510 - Maxillofacial and dental imaging

Categories: Head and Neck, Imaging Methods, Multidisciplinary, Musculoskeletal

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

#### **Moderators:**

Filip M. Vanhoenacker; Bonheiden / Belgium Felix Pierre Kuhn; Zürich / Switzerland

#### Chairpersons' introduction (5 min)

Filip M. Vanhoenacker; Bonheiden / Belgium Felix Pierre Kuhn; Zürich / Switzerland

#### What does the clinician expect from the radiologist? (15 min)

Danisia Haba; Iasi / Romania

#### Pre-and postimplant imaging of dental implants (15 min)

Anja Bernaerts; Antwerp / Belgium

#### Dental and skeletal imaging in forensic age estimation (15 min)

Jannick DeTobel; Leuven / Belgium

Panel discussion: How to improve multidisciplinary cooperation between dentists, oral surgeons, (musculoskeletal and head and neck) radiologists, and pathologists? (10 min)



# E<sup>3</sup> 1532 - Bladder cancer: a multidisciplinary approach

Categories: Genitourinary, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Valeria Panebianco; Roma / Italy

Chairperson's introduction (5 min)

Valeria Panebianco; Roma / Italy

Management of bladder cancer: from bench to bedside (15 min)

Shahrokh F. Shariat; Vienna / Austria

New frontiers for advanced bladder cancer care (20 min)

Andrea Necchi; Milan / Italy

Emerging role of MRI (20 min)

Alberto Hebert Vargas; New York / United States

 $\textbf{Multidisciplinary tumour board: case-based panel discussion} \ (30 \ \text{min})$ 

Valeria Panebianco; Roma / Italy



### E<sup>3</sup> 1521a - Cross-sectional imaging of bone metastases

Categories: General Radiology, Imaging Methods, Musculoskeletal, Oncologic Imaging

ETC Level: LEVEL II

Date: July 15, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

Is it a bone metastasis (incidental lesions)? (45 min)

Sabine Weckbach; Berlin / Germany

**Dedicated whole-body staging for bone metastases** (45 min)

Giuseppe Petralia; Milano / Italy



# IF 15 - Be accepted launch

Categories: Breast, Education, Management/Leadership, Multidisciplinary, Professional Issues

Date: July 15, 2022 | 14:30 - 15:30 CEST

CME Credits: 1

**Moderator:** 

Michael Fuchsjäger; Graz / Austria

Einführung durch den ESR Vorsitzenden (5 min)

Michael Fuchsjäger; Graz / Austria

Wie ich vom Himmel fiel (15 min)

Entspannungseinheit (10 min)

Launch von "Be accepted" (30 min)

Caroline Justich; Vienna / Austria Michael Fuchsjäger; Graz / Austria Rupert Bartsch; Vienna / Austria

Florian Fitzal; Austria

Annemarie Schratter-Sehn; Vienna / Austria

Michaela Kainz; Vienna / Austria Christian Singer; Vienna / Austria



# **CUBE 16 - Onco emergencies**

**Categories:** Interventional Radiology **Date:** July 15, 2022 | 15:30 - 16:00 CEST

CME Credits: 0.5

Onco emergencies (30 min) Anna Maria Ierardi; Milano / Italy



#### **RPS 1611 - Neuroimaging in brain tumours**

Categories: Imaging Methods, Neuro, Nuclear Medicine, Oncologic Imaging

Date: July 15, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Danai Chourmouzi; Thessaloniki / Greece

Dural angioleiomyoma: a new tumour type with frequent GJA4 mutation and a distinct DNA methylation profile (8 min)

Thibaut Pierre; Paris / France

Clinical applicability of whole brain SLOW-editing compared to MEGA-editing for the evaluation of the IDH-mutation status in glioma patients at 7T (8 min)

Guodong Weng; Bern / Switzerland

Conventional MRI features can predict the molecular subtype of adult grade 2-3 intracranial diffuse gliomas (8 min)

Arian Lasocki; Melbourne / Australia

The impact of tumour location on survival in glioblastoma patients (8 min)

Ahmad Amer; CHICAGO / United States

Histologic validation of multi-echo perfusion MRI to evaluate brain tumour microstructure (8 min)

Francesco Sanvito; Pavia / Italy

Radiological and pathological predictors of post-surgical evolution of pituitary neuroendocrine tumours. A retrospective analysis of 125 patients (8 min)

José Miguel Castro; Alicante / Spain

Comparative diagnostic accuracy of amide proton transfer-weighted imaging and dynamic susceptibility contrast perfusion in the distinction between brain radiation necrosis and tumour progression (8 min)

Mehdi Bensemain; Nancy / France

Introduction of intra-arterial administration of [68Ga]Ga-PSMA and [68Ga]Ga-DOTA-TATE in CNS tumors; a high potential approach for future development of novel theranostic treatment strategies (8 min)

Sophie E.M. Veldhuijzen van Zanten; Rotterdam / Netherlands

Do we match? An evaluation of the T2/FLAIR mismatch sign for oligodendroglioma diagnosis (8 min)

Julia Martins Brunelli; Sao Paulo / Brazil



# BUILDING BRIDGES JULY 13-17 | VIENNA

Effect of radiation therapy on meningioma enhancement on PET CT (8 min)

Dylan Abeysekera; Houston / United States



# E<sup>3</sup> 1619 - Building bridges between research and clinics in Al: a multidisciplinary approach

Categories: Artificial Intelligence & Machine Learning, General Radiology, Multidisciplinary, Professional Issues

**ETC Level:** ALL LEVELS

Date: July 15, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

#### **Moderators:**

Monique Maas; Amsterdam / Netherlands Zuhir Elkarghali; Amsterdam / Netherlands

#### Chairperson's introduction (2 min)

Monique Maas; Amsterdam / Netherlands Zuhir Elkarghali; Amsterdam / Netherlands

#### Rising role in the Dutch clinical workflow and research: the clinical technologist's perspective (15 min)

Jordy Kristian van Zandwijk; Enschede / Netherlands

#### Clinical implementation of AI algorithm: opportunities and challenges, experience from a radiology department (15 min)

Laurens Topff; Amsterdam / Netherlands

#### Multidisciplinary collaboration in radiomics research (15 min)

Raquel Perez Lopez; Barcelona / Spain

#### Case-based panel discussions (43 min)

Jordy Kristian van Zandwijk; Enschede / Netherlands Laurens Topff; Amsterdam / Netherlands Raquel Perez Lopez; Barcelona / Spain Stefano Trebeschi; Amsterdam / Netherlands



# E<sup>3</sup> 1621 - Imaging of the retroperitoneum

Categories: Abdominal Viscera, Genitourinary, GI Tract, Oncologic Imaging

ETC Level: LEVEL II

Date: July 15, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

Retroperitoneal lesions (45 min)

Subramaniyan Ramanathan; Doha / Qatar

Subperitoneal, perirectal and deep pelvic lesions (45 min)

Mustafa Seçil; Izmir / Turkey



# E<sup>3</sup> 1632 - Ovarian cancer: a multidisciplinary approach

Categories: Abdominal Viscera, Artificial Intelligence & Machine Learning, Genitourinary, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 15, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Evis Sala; Rome / Italy

Chairperson's introduction (5 min)

Evis Sala; Rome / Italy

Unanswered questions in ovarian cancer: the oncologist (15 min)

JamesD. Derek Brenton; Cambridge / United Kingdom

Imaging of peritoneal carcinomatosis (20 min)

Stephanie Nougaret; St Clement de Riviere / France

Radiomics for assessing tumour heterogeneity and predicting outcome (20 min)

Ramona Woitek; Cambridge / United Kingdom

Multidisciplinary tumour board: case-based panel discussion (30 min)

Evis Sala; Rome / Italy



# EFRS WS - Building our professional evidence-base

Categories: Education, Evidence-Based Imaging, Professional Issues, Radiographers, Research

Date: July 15, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Jonathan McNulty; Dublin / Ireland

Chairperson's introduction: Why it is essential that we all engage with research (10 min)

Jonathan McNulty; Dublin / Ireland

Publishing in a peer-review journal: taking your first steps (20 min)

Svea Deppe Moerup; Odense / Denmark

Reviewing for a peer-review journal: getting started and top tips (20 min)

Nick Courtier; Cardiff / United Kingdom

Engaging with peer-review journals through social media (20 min)

Ruth Reeve; Fareham / United Kingdom

Open discussion (20 min)



#### **ESOR** - Education in research

Categories: Education, Research

ETC Level: LEVEL II

Date: July 15, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

#### **Moderators:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands Valérie Vilgrain; Clichy / France

#### Introduction (5 min)

Regina G. H. Beets-Tan; Amsterdam / Netherlands

#### ESOR in action 2022 (5 min)

Valérie Vilgrain; Clichy / France

#### Getting involved in clinical trials: it is never too early (20 min)

Marie-Pierre Revel; Paris / France

#### The importance of networking in research (20 min)

Carlo Catalano; Roma / Italy

#### My experience: Bracco research fellowship (10 min)

Žiga Snoj; Ljubljana / Slovenia

#### My experience: Nicholas Gourtsoyiannis teaching fellowship (10 min)

Francesco Giganti; London / United Kingdom

Panel discussion (20 min)



### ESR/EIBIR 16 - Big data and artificial intelligence in cancer imaging

Categories: Artificial Intelligence & Machine Learning, Management/Leadership, Oncologic Imaging, Professional Issues, Research

ETC Level: LEVEL I

Date: July 15, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

**Moderator:** 

Marc Dewey; Berlin / Germany

Chairperson's introduction (5 min)

Marc Dewey; Berlin / Germany

Main aspects on data repositories in cancer imaging (20 min)

Luis Marti-Bonmati; Valencia / Spain

Building and validating artificial intelligence workflows in cancer imaging (20 min)

Karim Lekadir; Barcelona / Spain

**EIBIR activities and upcoming funding opportunities** (5 min)

Peter Gordebeke; Vienna / Austria

Panel discussion: Can causality be inferred from medical images? (10 min)



# EU 16 - European Commission tender: European co-ordinated action on improving justification of computed tomography

Categories: EuroSafe Imaging/Radiation Protection, Imaging Methods, Management/Leadership, Professional Issues

ETC Level: LEVEL III

Date: July 15, 2022 | 16:00 - 17:00 CEST

**CME Credits:** 1

#### **Moderators:**

Jacob Sosna; Jerusalem / Israel

Alexandra Karoussou-Schreiner; Luxembourg / Luxembourg

#### Chairperson's introduction (5 min)

Alexandra Karoussou-Schreiner; Luxembourg / Luxembourg

#### EU-JUST-CT project: importance and aims - ESR's view (15 min)

Boris Brkljačić; Zagreb / Croatia

#### EU-JUST-CT: importance and aims - European Commission's view (15 min)

Georgi Simeonov; Luxembourg / Luxembourg

#### EU-JUST-CT: current evidence base and EU justification processes (15 min)

Shane J Foley; Dublin / Ireland

Panel discussion: How many imaging procedures in Europe are not appropriate and how can we improve the figures? (10 min)



# OF 16R - Top tips in ultrasound 4: female pelvis

Categories: Abdominal Viscera, Genitourinary, Physics in Medical Imaging, Radiographers, Ultrasound

Date: July 15, 2022 | 16:00 - 17:00 CEST

**Moderator:** 

Gill Harrison; London / United Kingdom

Trans-abdominal ultrasound: presentation, live scanning demonstration, and questions and answers (60 min)

Roxanne Sicklen; London / United Kingdom



### RC 1613 - The multidisciplinary management of oncology patients during the evaluation of treatment response $\frac{1}{2}$

Categories: Imaging Methods, Multidisciplinary, Oncologic Imaging, Physics in Medical Imaging, Professional Issues

ETC Level: LEVEL III

Date: July 15, 2022 | 16:00 - 17:00 CEST

**CME Credits:** 1

#### **Moderator:**

Cynthia McCollough; Rochester / United States

#### Chairperson's introduction (5 min)

Cynthia McCollough; Rochester / United States

Perspectives of personalised modern oncology: examples of new drug approaches and clinical trial development (15

min)

John Haanen; Amsterdam / Netherlands

Staging and follow-up of oncologic patients: special needs of appropriateness in radiological imaging (15 min)

Joanna Podgórska; Warszawa / Poland

Staging and follow-up of oncologic patients: special needs of optimisation in radiological imaging (15 min)

Marco Brambilla; Novara / Italy

Panel discussion: Oncology patients in the radiology department: who and how should we coordinate a multidisciplinary team in case of oncologic patients that take part in clinical trials and/or drug programmes? (10 min)



#### OF 16Y - Meet the professors: part 4

Categories: Education, General Radiology, Management/Leadership, Professional Issues, Students

**ETC Level:** ALL LEVELS

Date: July 15, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

**Moderator:** 

Martina Pecoraro; Rome / Italy

Chairperson's introduction (5 min)

Martina Pecoraro; Rome / Italy

Boosting your career: more than one way to skin a rabbit! (20 min)

Soraya Robinson; Vienna / Austria

Diversity in a bilingual environment: from medical studies to clinical commitment in radiology (20 min)

Harriet Thoeny; Bern / Switzerland

Lucien Widmer; Villars-Sur-Glâne / Switzerland Julian Alexis Vidal; Fribourg / Switzerland Paraskevi Karampa; Fribourg / Switzerland Jana Di Vincenzo; Sion / Switzerland

**Discussion** (15 min)



#### RC 1616 - Pros and Cons: PET is the best method for whole body metastatic imaging

Categories: Hybrid Imaging, Molecular Imaging, Nuclear Medicine, Oncologic Imaging, Professional Issues

ETC Level: LEVEL III

Date: July 15, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

**Moderator:** 

Marius E. Mayerhöfer; Vienna / Austria

**Chairperson's introduction** (5 min) Marius E. Mayerhöfer; Vienna / Austria

**PRO** (15 min)

Stefano Fanti; Bologna / Italy

**CON** (15 min)

Anwar R. Padhani; Northwood / United Kingdom

Panel discussion: How can we choose the best option for our patient? (25 min)





#### RTF Quiz - Radiological chariots of fire: the journey through sports and pain

**Date:** July 15, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

#### **Moderators:**

Marco Francone; Milan / Italy Christian Loewe; Vienna / Austria

**Quiz Masters** (90 min) Marco Francone; Milan / Italy Christian Loewe; Vienna / Austria



#### TC 16 - Interventional breast techniques

**Categories:** Breast, Imaging Methods

ETC Level: LEVEL III

Date: July 15, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

#### **Moderators:**

Linda Moy; New York / United States

Ritse Maarten Mann; Nijmegen / Netherlands

#### A. Digital breast tomosynthesis-guided biopsy: how to do it, indications (20 min)

Emily F. Conant; Philadelphia / United States

#### B. Smart Clips and other devices for lesion localisation (20 min)

Fleur Kilburn-Toppin; Cambridge / United Kingdom

#### C. Minimally invasive treatment of breast cancer: a paradigm change (20 min)

Michael Fuchsjäger; Graz / Austria



#### RPS 1602 - Breast ultrasound in 2022

**Categories:** Breast, Imaging Methods **Date:** July 15, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Panagiotis Kapetas; Vienna / Austria

Contrast enhanced ultrasound (CEUS) with microbubble for preoperative assessment of sentinel lymph nodes in breast cancer patients improved surgical planning during COVID-19 pandemic (8 min)

Priya Karuppana Gounder Palanisamy; Maidstone / United Kingdom

Value of imaging in women presenting with breast pain: a cross-sectional study (8 min)

Catherine Payne; Edinburgh / United Kingdom

Lymphatic mapping using ultrasound microbubbles prior to lymphaticovenous anastomosis surgery for upper extremity lymphoedema (8 min)

Samuel Jang; Rochester / United States

Second-look ultrasound for MRI-detected lesions: MRI features, detection rate and sonographic findings (8 min)

Selda Güven; Ankara / Turkey

Elastography and diffusion-weighted imaging in breast cancer (8 min)

Ihsan Şebnem Sebnem Örgüç; Manisa / Turkey

Evaluating tumour-infiltrating lymphocytes in breast cancer: the role of conventional ultrasound and contrastenhanced ultrasound (8 min)

Ying Ying Jia; Lanzhou / China

Evaluation of additional MRI-detected breast lesions using the quantitative analysis of contrast-enhanced ultrasound scans and its comparability with dynamic contrast-enhanced MRI findings of the breast (8 min)

Kyung Eun Lee; Seoul / Korea, Republic of

Unusual benign intracapsular masses mimicking breast implant associated anaplastic large cell lymphoma (8 min)

Elige Karam; Montreal / Canada

Identifying non-mass-like breast lesions on automated breast volume scanner images: analysis of the features analysis and diagnostic performance (8 min)

Luxia Jing; Shanghai / China





Evaluation of computer-aided diagnosis in breast ultrasonography: improvement in diagnostic performance of inexperienced radiologists (8  $\min$ )

Giulia Muscogiuri; Milano / Italy

Malignant lesions characterised as BI-RADS 4A in ultrasound, a subtype analysis (8 min)

Sepideh Sefidbakht; Shiraz / Iran



#### RPS 1614 - Advancing radiographic practice and training needs

Categories: Education, Professional Issues, Radiographers, Students, Ultrasound

Date: July 15, 2022 | 16:00 - 17:00 CEST

**CME Credits:** 1

#### **Moderators:**

Jonathan Loui Portelli; Msida / Malta

Filip M. Vanhoenacker; Bonheiden / Belgium

Role expansion in ultrasound: radiographers in European Federation of Radiographer Societies (EFRS) countries (8 min)

Barbara Kraus; Wolkersdorf / Austria

European radiographers' experience in ultrasound: roles, support and legal responsibility (8 min)

Barbara Kraus; Wolkersdorf / Austria

Ultrasound evaluation of the patellar tendon in sports practitioners and non-sports practitioners: the radiographer's role (8 min)

Ângela Patrícia Gomes Pissarra; Faro / Portugal

Characteristics associated with high interpretation performance amongst radiography advanced practitioners (RAPs) involved in breast cancer screening (8 min)

Noelle Lay; Craigavon / United Kingdom

An investigation of radiographers' perception about their role in providing psychosocial support to cancer patients (8

min)

Jonathan Loui Portelli; Msida / Malta

Building bridges among students and young radiographers in Nigeria based on previous ECR sponsored experience (8

Aiman Amin Chidera Igwegbe; Maiduguri / Nigeria



#### RPS 1608 - Thyroid and parathyroid gland imaging

Categories: Artificial Intelligence & Machine Learning, Head and Neck, Imaging Methods, Ultrasound

Date: July 15, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Elene Gotsiridze; Tbilisi / Georgia

Deep convolutional neural network with transfer learning for automated classification of thyroid nodules on ultrasound

(8 min)

Philip Yangsean Choi; Seoul / Korea, Republic of

Efficiency of biopsy criteria in thyroid nodules: the 2017 European Thyroid Imaging Reporting and Data System versus the 2017 American College of Radiology Thyroid Imaging management guidelines (8 min)

Guillem Dolz; Valldoreix / Spain

TIRADS, SRE and SWE in the indeterminate thyroid nodule characterisation: which is the best? (8 min)

Giovanni Del Gaudio; Rome / Italy

Contrast-enhanced ultrasonography for differential diagnosis of benign and malignant thyroid lesions: single-institutional prospective study of qualitative and quantitative CEUS characteristics (8 min)

Hana Petrasova; Brno / Czechia

Diagnostic accuracy and interobserver agreement of ACR Thyroid Imaging Reporting and Data System (TI-RADS) among radiologists with different experience levels (8 min)

Mohamed T. El-Diasty; Jeddah / Saudi Arabia

Extracellular volume fraction using dual-energy CT for diagnosing cervical lymph nodes metastasis from papillary thyroid cancer (8 min)

Yan Zhou; Nanjing / China

Contrast-enhanced ultrasonography with Sonazoid in small lateral neck lymph nodes metastasis of papillary thyroid carcinoma: excellent diagnostic performance (8 min)

Lingli Xiao; Guangzhou / China

Comparative study of MRI features and pathological features of thyroid nodules (8 min)

Xiao Yan Liu; Tai an / China

US-elastography with different techniques for thyroid nodule characterisation: systematic review and meta-analysis (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

Patrizia Pacini; Frascati / Italy

 $\label{lem:macrocalcifications} \begin{tabular}{ll} Macrocalcifications do not alter malignancy risk within the 2017 European Thyroid Imaging Reporting and Data System (EU-TIRADS) when present in non-high suspicion thyroid nodules (8 min) \\ \end{tabular}$ 

Ana Cecilia Sánchez; Sabadell / Spain

MRI and 4D-CT diagnostic performance in preoperative localisation of parathyroid adenoma correlated with surgical and pathological findings (8 min)

Anat Yahav-Dovrat; Haifa / Israel



#### RPS 1604 - The post-COVID lung

Categories: Artificial Intelligence & Machine Learning, Chest, EuroSafe Imaging/Radiation Protection, Imaging Methods,

Multidisciplinary

Date: July 15, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

Moderator:

Annemiek Snoeckx; Zandhoven / Belgium

Quantitative chest CT analysis to measure short-term sequelae of COVID-19 pneumonia: a monocentric prospective study (8 min)

Angela Ammirabile; Milan / Italy

Post-COVID-19 lung fibrosis: a study of 600 cases in tertiary care setting in India on the effect of hyperglycemia, radiological phenotypes and response to antifibrotics (8 min)

Shital Patil Patil; LATUR / India

Radiologic-pathologic correlation in 1-year follow-up patients after COVID-19 infection (8 min)

Diletta Cozzi; Prato / Italy

Inflammatory burden and persistent CT lung abnormalities in COVID-19 patients (8 min)

Filippo Monelli; Modena / Italy

Structural and functional pulmonary assessment in severe COVID-19 patients at 12 months after discharge (8 min)

Elisa Mercanzin; Bergamo / Italy

Follow-up CT in patients with confirmed COVID-19 lung injury on the example of outpatient triage CT centres in St. Petersburg (8 min)

Daria Igorevna Kuplevatskaya; St.Petersburg / Russia

Multicentric study of chest CT practice evolution during the COVID-19 pandemic in France (8 min)

Ramiro Moreno; Strasbourg-Entzheim / France

Dynamic changes of residual lesions and lung volume in moderate and severe convalescent COVID-19 patients: 6month quantitative follow-up study after discharge (8 min)

Feihong Wu; Wuhan / China

Vertebral bone mineral density change in COVID-19 convalescent patients: a 1-year follow-up study based on chest CT (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

Feihong Wu; Wuhan / China

Follow-up CT scan at 6-7 months in a cohort of 405 severe COVID-19 pneumonia survivors: preliminary results of a multicentre study (8 min)

Filippo Monelli; Modena / Italy

Ultra-low-dose CT (ULDCT) vs low-dose CT (LDCT) of the chest in post-COVID-19 patients: an intrapatient comparison (8 min)

Christian Wassipaul; Wien / Austria



#### RPS 1601 - How to improve your abdominal imaging protocols?

Categories: Abdominal Viscera, Imaging Methods, Physics in Medical Imaging, Research

Date: July 15, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Giovanna Ferraioli; Pavia / Italy

Low-dose CT of the abdomen: initial experience on a novel photon-counting detector CT and comparison with energy-integrating detector CT (8 min)

Josua A. Decker; Augsburg / Germany

The application value of slow injection combined with dual arterial phase scanning in MR-enhanced liver with gadoxetic acid (8 min)

Jiayan Liu; Suzhou / China

Are dilution and slow injection with fluoroscopic triggering technique the solution to mitigating arterial-phase artifacts in gadoxetic acid enhanced liver MRI? (8 min)

Raphael Ambros; Wien / Austria

A feasibility study of "dark-blood" angiography using dual-layer detector CT in pre-operative staging of pancreatic cancer (8 min)

Keke Si; Wuhan / China

Value of dual-layer spectral-detector CT in reducing intestinal peristalsis-related streak artifacts on the liver (8 min) Sergio Grosu; Munich / Germany

Diagnostic value of multiple arterial-phase images in liver magnetic resonance imaging: a systematic review and metaanalysis (8 min)

Sun Hong; Seoul / Korea, Republic of

Virtual non-contrast imaging of clinical photon-counting detector CT: accuracy in the abdomen (8 min)

Victor Mergen; Zurich / Switzerland

Quantum iterative reconstruction for abdominal photon-counting detector CT: assessment of image quality and lesion conspicuity in a phantom and patients (8 min)

Andre Euler; Zurich / Switzerland

The utility of contrast-enhanced ultrasound (CEUS) in splenic lesion diagnosis (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

Maira Hameed; London / United Kingdom

Comparison of iterative reconstruction and deep learning imaging reconstruction in detection of hypoattenuating liver metastasis (8 min)

Nana Liu; Zheng zhou / China





#### RPS 1615 - Advances in thoracoabdominal and peripheral vascular CT

Categories: Contrast Media, EuroSafe Imaging/Radiation Protection, Imaging Methods, Physics in Medical Imaging, Vascular

Date: July 15, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

#### **Moderator:**

Joachim Kettenbach; Wiener Neustadt / Austria

Low volume contrast media protocol for CT angiography of the aorta: prospective development and evaluation with photon-counting detector CT (8 min)

Hatem Alkadhi; Zürich / Switzerland

Lower extremity run-off CT angiography on a novel dual-source photon counting detector CT: image quality comparison with a second generation dual-source energy-integrating detector CT (8 min)

Katharina Rippel; Augsburg / Germany

Application of dual-layer detector spectral CT in reducing the contrast hardening artifact around subclavian vein (8 min)

Huayang Du; Beijing / China

The applied research of diagnose fibrosing mediastinitis by "one-stop" pulmomary angiography of dual-layer detector spectral CT (8 min)

Xing Zhou; Lanzhou / China

**Dual-energy CT as an adjunct to evaluate the significance of type-II endoleaks after endovascular aneurysm repair** (8 min)

Stavros Charalambous; Heraklion Crete / Greece

Computed tomography angiography reconstructed with MBIR for TAVR planning as a comprehensive tool for the assessment of coronary arteries (8 min)

Personalised high-pitch CTPA facilitates a reduction of contrast agent volume (8 min)

Raoul Varga; Wien / Austria

Comparison of ultrasound with superb microvascular imaging (SMI), contrast enhanced ultrasound (CEUS) and angio CT (CTA) in the detection of post EVAR endoleak (8 min)

Marco Curti; Pavia / Italy

Determination of aortic pulsatility on ECG-gated CT angiography in patients with abdominal aneurysms (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

Máté Huber; Budapest / Hungary

Potential utility of ECG-gated CT angiography for investigation of the elastic properties of the ascending thoracic aorta (8 min)

Viktor V. Saushkin; Tomsk / Russia

Can we finally skip unenhanced acquisitions prior to CT angiography of aortic stent patients? Comparison of 2- and 3-material decomposition reconstructions of photon-counting detector CT datasets (8 min)

Josua A. Decker; Augsburg / Germany



#### - Highlights from the Mobile Film Crew Day 4

**Date:** July 16, 2022 | 02:15 - 02:30 CEST

**Moderator:** 

Ben Giese; Chicago / United States



#### EF - Interventional CT and fluoroscopy: optimisation, safety, and practice

Categories: EuroSafe Imaging/Radiation Protection, General Radiology, Imaging Methods, Interventional Radiology, Physics in

Medical Imaging

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderators:**

Paddy Gilligan; Dublin / Ireland Lucie Sukupova; Prague / Czechia

#### Chairperson's introduction (5 min)

Paddy Gilligan; Dublin / Ireland

#### **Optimisation in interventional CT and CT fluoroscopy** (15 min)

Joel Greffier; Nimes / France

#### Occupational safety in CT fluoroscopy and interventional CT (15 min)

Christian Hohl; Siegen / Germany

#### Safe and optimised clinical practice in interventional CT (15 min)

Mark Bolger; Waterford / Ireland

Panel discussion: Is in-room interventional fluoroscopy and CT now a safer practice with patient benefits? (10 min)



#### RPS 1704 - Airways, emphysema and lung cysts

Categories: Artificial Intelligence & Machine Learning, Chest, EuroSafe Imaging/Radiation Protection

Date: July 16, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

**Moderator:** 

Marija Simic; Zagreb / Croatia

Detection of progressive airway disease on chest computed tomography in a phase III cystic fibrosis study cohort using a fully automated method to analyse airway and artery dimensions (8 min)

Qianting Lv; Rotterdam / Netherlands

Magnetic resonance imaging detects improvement in upper and lower airway abnormalities in adults with cystic fibrosis treated with novel CFTR-modulator therapy (8 min)

Lena Wucherpfennig; Heidelberg / Germany

Ten years of cumulative effective dose (CED) data in Cystic Fibrosis (CF): the evolution of low dose CT techniques in CF thoracic imaging and impact on radiation exposure (8 min)

Alexander Tobias O'Mahony; Cork / Ireland

Visual and quantitative CT-based emphysema and lung cancer: a systematic review and meta-analysis (8 min) Xiaofei Yang; Groningen / Netherlands

Understanding chronic respiratory disease: quantifying mechanical properties of trachea/radiology meets engineering mechanics (8 min)

Joshua Gawlitza; München / Germany

Semi-automatic assessment of cystic pulmonary changes in children with juvenile systemic sclerosis (8 min) Giulia Fichera; Padua / Italy

Longitudinal thoracic CT study in Birt-Hogg-Dubé syndrome: progression of cysts and relation with prognosis (8 min) Su Min Cho; Seoul / Korea, Republic of



#### RPS 1708 - Head and neck oncology

Categories: Artificial Intelligence & Machine Learning, Head and Neck, Imaging Methods, Oncologic Imaging, Ultrasound

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Davide Farina; Brescia / Italy

Outcomes of head and neck fine-needle aspiration cytology results: consultant vs. sonographer (8 min)

Abeera Khan; Portsmouth / United Kingdom

Agreement of TIRADS and ATA as ultrasonographic thyroid nodules scoring systems and their relationship with pathology findings (8 min)

Leila Aghaghazvini; Tehran / Iran

Predictive value of 18F-FDG PET / CT in BRAFV600E mutation in patients with differentiated thyroid cancer (8 min)

Zewen Jiang; GuiLin / China

Use of artificial intelligence in management of head-neck tumours: a multidisciplinary survey (8 min)

Stefano Lusi; Milano / Italy

HEad and neCK TumOR segmentation and outcome prediction: The HECKTOR challenge (8 min)

Adrien Depeursinge; Sierre / Switzerland

Can quantitative diffusion-weighted MR imaging be useful as non-invasive prognostic marker to predict histologic type in uveal melanomas?: preliminary results (8 min)

Corrado Ini; Catania / Italy



#### RPS 1705b - Artificial intelligence in brain imaging

Categories: Artificial Intelligence & Machine Learning, Neuro

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderator:**

Sotirios Bisdas; London / United Kingdom

Comprehensive deep-learning model on CT brain outperforms radiologist performance in the majority of findings (8

mın

Peter Brotchie; Sydney / Australia

A cautionary tale about lesion detection performance evaluation in multiple sclerosis (8 min)

Veronica Munoz Ramirez; La Tronche / France

Segmentation of MS lesions: accuracy of mdbrain 4.5 versus a pool of human experts (8 min)

Andreas Lemke; Berlin / Germany

K-space based deep learning reconstruction empowers 50% acceleration of MR spine imaging: a prospective multicentre, multireader trial (8 min)

Lawrence N Tanenbaum; RIVERSIDE / United States

 $\textbf{mdbrain vs. FreeSurfer \& SPM: repeatability and performance of different methods for brain volumetry (8 \ min)}$ 

Jens Ruediger Opalka; Berlin / Germany



#### RPS 1701 - Surveillance and workup of hepatocellular carcinoma (HCC)

Categories: Abdominal Viscera, Contrast Media, Imaging Methods, Oncologic Imaging, Research

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Giuseppe Brancatelli; Palermo / Italy

Outcomes of LI-RADS US-2 subthreshold observations (8 min)

Justin Ruey Tse; Stanford / United States

What factors are associated with increased risk for peritoneal seeding after radiofrequency ablation for hepatocellular carcinoma (8 min)

Hwaseong Ryu; Yangsan / Korea, Republic of

Value of intravoxel incoherent motion for preoperative evaluation of liver regeneration in hepatocellular carcinoma (8 min)

Qian Li; Chengdu / China

Radiomics-based on multisequence MRI for hepatocellular carcinoma prediction in hepatobiliary phase hypointense nodules without arterial phase hyperenhancement: a multicentre study (8 min)

Seo-Yeon Youn; Seoul / Korea, Republic of

Value of precontrast and portal venous phases for evaluating atypical hepatocellular carcinoma mimicking arterioportal shunt (8 min)

Minkyo Song; Seoul / Korea, Republic of

Positive predictive value of hepatocellular carcinoma surveillance ultrasound depends on presence of cirrhosis (8 min) Justin Ruey Tse; Stanford / United States



#### RPS 1705a - Evaluation of artificial intelligence (AI) systems

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Imaging Methods

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderator:**

Angel Alberich-Bayarri; Valencia / Spain

Retrospective evaluation of an AI based software tool for chest x-ray quality assurance purposes on Elisabeth-TweeSteden Hospital study sample (8 min)

Naglis Ramanauskas; Vilnius / Lithuania

Retrospective evaluation of an AI based software tool for chest x-ray quality assurance purposes on Vilnius University Santaros clinics (Vilnius, Lithuania) study sample (8 min)

Naglis Ramanauskas; Vilnius / Lithuania

Incorrect application of feature selection when using cross-validation can lead to bias (8 min)

Denise Bos; Essen / Germany

Selective on-site retraining for efficient performance drop compensation due to domain shift (8 min)

Omar Hertgers; Den Haag / Netherlands

Stand-alone detection performance of two commercial deep learning algorithms in a UK breast screening workflow (8

min)

Sarah Hickman; Cambridge / United Kingdom

Comparative testing of three artificial intelligence algorithms interval cancer detection performance and the importance of application context in evaluating such algorithms for mammographic screening (8 min)

Sarah Hickman; Cambridge / United Kingdom



#### PP 17 - Imaging genitourinary complications and pathologies

Categories: Abdominal Viscera, Artificial Intelligence & Machine Learning, Genitourinary, Oncologic Imaging

Date: July 16, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

**Moderator:** 

Lorenzo E. Derchi; Genoa / Italy

Vascular complications in renal transplant: Doppler ultrasound evaluation and the potential therapeutic role of interventional radiology (8 min)

Teresa Cobo Ruiz; Santander / Spain

Renal cell carninoma with vascular extension: what to look for (8 min)

Rodrigo Alonso González; Madrid / Spain

Initial findings of prostatic artery occlusion (PAO) with Onyx® in a canine model for the management of benign prostatic hyperplasia (8 min)

Vanesa Lucas Cava; Cáceres / Spain

Endometriosis and pelvic innervation: what the abdominal radiologist needs to know (8 min)

Ana Paula Bavaresco; São Paulo / Brazil

Magnetisation transfer imaging of ovarian cancer correlates with tissue cellularity and can detect microstructural changes following neoadjuvant chemotherapy (8 min)

Surrin Deen; Cambridge / United Kingdom

IntraVoxel Incoherent Motion (IVIM) imaging of placenta in women with previous COVID-19 pregnancy infection: a preliminary MRI study (8 min)

Giada Ercolani; Rome / Italy

Imaging the complications of gynaecological brachytherapy (8 min)

Niharika Tyagi; Chalfont St Giles / United Kingdom

How to prepare CT scanners from a radiology department for radiomic studies (8 min)

Maria Aymerich; Vigo / Spain





#### **RPS 1714 - Professional challenges for radiography**

Categories: Education, Management/Leadership, Professional Issues, Radiographers, Research

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderators:**

Patrizia Cornacchione; Rome / Italy Joan C. Vilanova; Girona / Spain

Incidents of workplace harassment: reporting mechanisms & support services available to radiographers in the Republic of Ireland (8 min)

Mark F. F. McEntee; Cork / Ireland

Impact of work interruptions on stress level of health care workers and professional quality of life: single institute experience (8 min)

Dávid Sipos; Kaposvár / Hungary

The lived experiences of radiographers imaging trauma patients in Gauteng, South Africa (8 min)

Shabnam Wahid; Johannesburg / South Africa

Exploring and standardising research ethics processes for radiography research across Europe (8 min)

Christina Malamateniou; London / United Kingdom



#### **RPS 1711 - Neurodegenerative diseases: Parkinson's**

Categories: Imaging Methods, Neuro Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Jose Maria Garcia Santos; Murcia / Spain

Automated midbrain volumetry: potential tool to differentiate progressive supranuclear palsy from Parkinson's disease (8 min)

Francisco Javier Mendoza Ferradas; Pamplona / Spain

Imaging the primary motor cortex in hereditary spastic paraplegia (8 min)

Graziella Donatelli; Pisa / Italy

Mapping motor related white matter pathways after subthalamic nucleus DBS treatment for Parkinson's disease: a postoperative fiffusion MRI tractography study (8 min)

Yan Li; Shanghai / China

Multi-modality MRI-based study of abnormal brain microstructure pattern and differentiation of Parkinson's disease subtypes (8 min)

Yijun Leng; Shanghai / China

Diagnostic performance of the magnetic resonance parkinsonism index in differentiating progressive supranuclear palsy from Parkinson's disease: an updated systematic review and meta-analysis (8 min)

Seongken Kim; Seoul / Korea, Republic of

STAGE as a multicentre, multivendor protocol for imaging Parkinson's disease: a validation study on healthy controls (8 min)

Naying He; Shanghai / China

Microstructural but not macrostructural cortical degeneration in Parkinson's disease with mild cognitive impairment: evidence from NODDI investigation (8 min)

Xueqin Bai; Shanghai / China



#### RPS 1702 - How to improve lymph node detection and characterisation

Categories: Breast, General Radiology, Nuclear Medicine

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Paola Clauser; Vienna / Austria

Utility of novel silicone-specific dual-energy CT material classification method in diagnosing silicone breast implant rapture and detecting silicone in regional lymph nodes (8 min)

Mariana Yalon; Rochester / United States

Radiomics nomogram for prediction of axillary lymph node metastasis in contrast-enhanced cone-beam breast CT (8 min)

Yueqiang Zhu; Tianjin / China

Preoperative axillary LN staging by breast expert vs general radiologist: area for improvement (8 min)

Sepideh Sefidbakht; Shiraz / Iran

The value of dual-layer detector computed tomography for preoperative diagnosis of axillary sentinel lymph node in breast cancer (8 min)

Xiaohui Zhang; Shanghai / China

Accuracy of 14G core biopsy in the diagnosis of axillary lymph node metastasis from breast cancer (8 min)

Chiara Bellini; Scandicci / Italy

Simultaneous multiparametric [18F]-fluoroethylcholine PET-MRI in the local staging of breast cancer (8 min)

Paola Clauser; Vienna / Austria



#### **RPS 1716 - Pancreatic malignancies**

Categories: Abdominal Viscera, Imaging Methods, Oncologic Imaging, Translational Imaging

Date: July 16, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

 $\textbf{Missed and misinterpreted findings of pancreatic cancer on MRI: prevalence of early features/findings \ (8 \ min)}$ 

Anthony Chuprin; Jacksonville / United States

18F-FDG PET/MRI enables early chemotherapy response prediction in pancreatic ductal adenocarcinoma (8 min)

Friederike Jungmann; Munich / Germany

Treatment assessment of pNET and NELM after everolimus by quantitative MRI parameters (8 min)

Maria Ingenerf; Munich / Germany

Prediction of greater pancreatic neuroendocrine tumour aggressiveness by increased stiffness (8 min)

Emin Gültekin; Berlin / Germany

Detailed MRI subtyping of cystic morphology in serous and mucinous cystic neoplasms of the pancreas: a retrospective evaluation (8 min)

Felix Maximilian Kubicka; Berlin / Germany

Clinical usefulness of dual-layer spectral detector CT in preoperative detection of hepatic metastases from pancreatic ductal adenocarcinoma (8 min)

Yanzhao Yang; Shanghai / China

Prognostic effect of sarcopenia and myosteatosis in patients with resectable pancreatic ductal adenocarcinoma (8 min)

Hyemin Ahn; Seoul / Korea, Republic of



#### **RPS 1709 - Arterial and venous interventions**

Categories: Imaging Informatics, Imaging Methods, Interventional Radiology, Multidisciplinary

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderator:**

Ruediger Schernthaner; Vienna / Austria

Initial clinical experience of intraprocedural aortic aneurysm sac embolisation using shape memory polymer devices during endovascular aneurysm repair (8 min)

Felix Frenzel; Homburg / Germany

Diagnostic performance of digital variance angiography in reduced radiation lower limb examinations (8 min) István Góg; Budapest / Hungary

Unreported venous thromboembolism on routine CT imaging of the abdomen and pelvis and the possibility of earlier diagnosis and intervention (8 min)

Niamh A O'Halloran; Galway / Ireland

Risk factors associated with difficult-retrieval inferior vena cava filters (D-RIVCF) (8 min)

Elisabet Vila-Trias Jover; Barcelona / Spain

 $\textbf{Volume-flow-guided angioplasty of dysfunctional autologous arteriove nous fistula: the VOLA Study (8 \min)} \\$ 

Panagiotis Filippou; Athens / Greece

A single-centre experience of percutaneous arteriovenous fistula creation with an RF-based EndoAVF System (8 min)

Vasiliki Taki; ПАТРА / Greece

Evaluation of the effectiveness and safety of local fibrinolysis guided by catheter as part of a multidisciplinary management of acute pulmonary thromboembolism (8 min)

Abraham Portillo Perdomo; Alzira / Spain



#### RC 1710 - Ultrasound in musculoskeletal radiology

Categories: Imaging Methods, Interventional Radiology, Musculoskeletal, Ultrasound

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Elena E. Drakonaki; Heraklion / Greece

**Chairperson's introduction** (5 min) Elena E. Drakonaki; Heraklion / Greece

High-frequency and ultra-high frequency ultrasound (15 min)

Luca Maria Sconfienza; Milano / Italy

MSK elastography (15 min)

Žiga Snoj; Ljubljana / Slovenia

Interventional MSK ultrasound (15 min)

Elena E. Drakonaki; Heraklion / Greece

Panel discussion: New clinical roles for musculoskeletal ultrasound (10 min)



#### Meets 17 - Building bridges: EFRS meets the Netherlands

Categories: Imaging Methods, Nuclear Medicine, Radiographers, Research

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderators:**

Francis Zarb; Msida / Malta Jesse Clarijs-deJong; Delft / Netherlands

Introduction (5 min)
Francis Zarb; Msida / Malta
Jesse Clarijs-deJong; Delft / Netherlands

#### Surface scanning in radiotherapy (15 min)

Deniece Washington; Tilburg / Netherlands Lennart Mesch; Tilburg / Netherlands

An evaluation of patient experience during CT breast biopsy (15 min)

Hybrid imaging: the merge between radiology and nuclear medicine (15  $\mbox{min})$ 

Peter Liedorp; Raamsdonkveer / Netherlands

Panel discussion (10 min)



#### RC 1702 - Neoadjuvant chemotherapy of breast cancer: image-guided treatment

Categories: Breast, Imaging Methods, Oncologic Imaging, Translational Imaging

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Mustafa Erkin Aribal; Istanbul / Turkey

**Chairperson's introduction** (5 min) Mustafa Erkin Aribal; Istanbul / Turkey

Current role and results of imaging methods to detect residual disease (15 min)

Tamar Sella; Jerusalem / Israel

Early response assessment and potential change of treatment: what needs to be done? (15 min)

Claudette Loo; Amsterdam / Netherlands

Post-therapeutic management: is this the time to start omitting surgery? (15 min)

Sara Jimenez Arranz; Madrid / Spain

Panel discussion: Is it possible to team up with the oncologists to adapt treatment using imaging biomarkers? (10 min)



#### RC 1703 - The crucial role of the radiologist at the heart of the multidisciplinary cardiac team

Categories: Cardiac, Imaging Methods, Multidisciplinary, Professional Issues, Vascular

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Rodrigo Salgado; Antwerpen / Belgium

**Chairperson's introduction** (5 min) Rodrigo Salgado; Antwerpen / Belgium

 $\textbf{Cardiac CT and MRI in the cardiac team: the role of the radiologist according to the guidelines} \ (15 \ \text{min})$ 

Matthias Gutberlet; Leipzig / Germany

The value of the radiologist in non-surgical aortic and mitral valve intervention (15 min)

Jean-Nicolas Dacher; Rouen / France

The vital role of the radiologist in the congenital cardiac team (15 min)

António J. Madureira; Porto / Portugal

Panel Discussion: How do radiologists become, and ensure we remain, a crucial part of these teams in the future? (10

min)



#### OF 17Y - Career paths: subspecialisation (part 1)

Categories: Education, General Radiology, Multidisciplinary, Professional Issues, Students

**ETC Level:** ALL LEVELS

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderator:**

Apostolos H. Karantanas; Heraklion / Greece

#### **Chairperson's introduction** (5 min)

Apostolos H. Karantanas; Heraklion / Greece

#### Neuroradiology (ESNR) (10 min)

Meike W. Vernooij; Rotterdam / Netherlands Harro Seelaar; Rotterdam / Netherlands

#### Paediatric radiology (ESPR) (10 min)

Maria Raissaki; HERAKLION / Greece Stavroula Ilia; Iraklion / Greece

#### Thoracic imaging (ESTI) (10 min)

Annemiek Snoeckx; Zandhoven / Belgium Jan P van Meerbeeck; Edegem / Belgium

Discussion (25 min)



#### RC 1713 - Pros and Cons: The clinical benefits of MRI-Linac systems are worth the headaches

Categories: Hybrid Imaging, Imaging Methods, Multidisciplinary, Physics in Medical Imaging, Professional Issues

ETC Level: LEVEL III

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Ioannis Seimenis; Athens / Greece

Chairperson's introduction (5 min)

Thierry Gevaert; Brussels / Belgium

**PRO** (15 min)

Bas Raaymakers; Amsterdam / Netherlands

**CON** (15 min)

Claudio Fiorino; Milan / Italy

Panel discussion: Image-guided radiotherapy: when and how should we visualise treatment response? (25 min)





#### RC 1717 - Controversial issues in imaging COVID-19 patients in the emergency setting

Categories: Chest, Contrast Media, Emergency Imaging, Imaging Methods, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Marie-Pierre Revel; Paris / France

Chairperson's introduction (5 min)

Marie-Pierre Revel; Paris / France

Classification and scoring systems of COVID-19 imaging findings (15 min)

Ivana Blazic; Belgrade / Serbia

Differential diagnosis of lung ground-glass opacities in COVID-19 pandemic (15 min)

Anna Rita Larici; Roma / Italy

Who would benefit from urgent chest imaging and which imaging strategy is the best? (15 min)

Luis Gorospe Sarasua; Madrid / Spain

Panel discussion: How can we integrate imaging to orient patient management? (10 min)



# **CUBE 17 - Neuro Specials**

**Categories:** Interventional Radiology **Date:** July 16, 2022 | 09:00 - 09:30 CEST

CME Credits: 0.5

**Neuro Specials** (30 min) Martin Bretzner; Lille / France



# **HD 4 - Highlights of the Day**

**Date:** July 16, 2022 | 09:15 - 09:30 CEST

#### **Moderator:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands



# PL 3 - Thinking differently about cancer treatment regimens

Categories: Oncologic Imaging

**ETC Level:** ALL LEVELS

Date: July 16, 2022 | 09:30 - 10:00 CEST

CME Credits: 0.5

**Moderator:** 

Regina G. H. Beets-Tan; Amsterdam / Netherlands

Thinking differently about cancer treatment regimens (28 min)

René Bernards; Amsterdam / Netherlands



# CUBE 18 - 24/7 call for a national thrombectomy service

**Categories:** Interventional Radiology **Date:** July 16, 2022 | 09:30 - 10:00 CEST

CME Credits: 0.5

24/7 call for a national thrombectomy service (30 min)

Barry Hallinan; Dublin / Ireland



#### RPS 1805a - Artificial intelligence (AI) in breast imaging

Categories: Artificial Intelligence & Machine Learning, Breast, Imaging Informatics, Oncologic Imaging

Date: July 16, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Chantal Van Ongeval; Leuven / Belgium

Preparing screening mammograms for Artificial Intelligence using deep learning (8 min)

Sofia Salas Aguirre; GUADALAJARA / Mexico

Al-based strategy to reduce the recall rate and consensus meeting workload of double reading in breast cancer screening with digital mammography: a retrospective evaluation (8 min)

Daan Hellingman; Forchheim / Germany

The use of deep learning techniques in craniocaudal views in mammography (8 min)

Raluca-Elena Meetescu; Craiova / Romania

Breast lesion recognition through machine learning: MammoWave clinical trial data (8 min)

Soumya Prakash Rana; London / United Kingdom

Can an Al-based decision referral approach improve the overall sensitivity of a breast cancer screening programme? (8

min)

Stefan Bunk; Berlin / Germany

Detection of breast arterial calcifications on mammograms with deep learning (8 min)

Nazanin Mobini; Milan / Italy

Can a screening mammography teaching file with AI improve trainee interpretation skills? (8 min)

Pierre Fillard; Paris / France

Implementation of lesion detection box-derived radiomics signature in computer-aided decision support system for breast cancer ultrasound imaging (8 min)

Zuzanna Anna Magnuska; Aachen / Germany

A multicentric study to evaluate the effectiveness of machine learning over thermal images for detecting suspected breast cancer (8 min)

Sudhakar Sampangi; Bangalore / India



# BUILDING BRIDGES JULY 13-17 | VIENNA

Breast tissue segmentation in digital mammography using deep learning: one method for multiple views and vendors (8 min)

Sarah Delaja Verboom; Nijmegen / Netherlands



#### RPS 1809 - Interventional ablation therapy outside the liver

Categories: Interventional Oncologic Radiology, Interventional Radiology, Multidisciplinary

Date: July 16, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Brian Lucey; Kilcolgan, Galway / Ireland

Does ramping power protocol reduce complications in patients treated with image-guided microwave ablation for renal

tumours? (8 min)

Elena Lucertini; Rome / Italy

Radiofrequency ablation for treatment of abdominal wall endometriosis (8 min)

Seyed Ali Akbar Mahdavi Anari; Tehran / Iran

Early assessment of MRI signal intensity of irreversible electroporation in pancreatic cancer (8 min)

Oliwia Wiktoria Kozak; Gdansk / Poland

Imaging and response characteristics of Desmoid tumours following percutaneous cryoablation (8 min)

Edward William Johnston; London / United Kingdom

Safety of MR-guided High Intensity Focused Ultrasound (MRgHIFU) in the treatment of bone metastases (8 min)

Valerio D'Agostino; Parete / Italy

Electrochemotherapy (ECT) with bleomycin in the treatment of bone metastases (8 min)

Nicolas Papalexis; Bologna / Italy

Correlation of hormone indices and collimated C-arm CT findings for adrenal venous sampling in primary hyperaldosteronism (8  $\min$ )

Lena Sophie Becker; Hannover / Germany

Metal artifact reduction algorithm for monitoring and assessing ablation zones during CBCT guided pulmonary microwave ablation in an ex vivo porcine model: a qualitative and quantitative study (8 min)

Mesut Öztürk; Samsun / Turkey

Long-term outcomes in percutaneous cryoablation of tumours in solitary kidneys (8 min)

Federica Segato; Rosà / Italy



# BUILDING BRIDGES JULY 13-17 | VIENNA

Cryoablation versus partial nephrectomy for clinical stage T1 renal masses: a systematic review and meta-analysis (8 min)

Ying Xu; Beijing / China

**Optimising CT-guided bone biopsies in cancer patients** (8 min)

Ricardo Donners; Basel / Switzerland



#### RPS 1812 - Neuroimaging: from foetus to adolescent

**Categories:** Neuro, Paediatric Imaging **Date:** July 16, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Marie Blouet; Nice / France

Quantitative MRI of the human fetal ganglionic eminence: neuroradiological insights into a transient brain structure (8

min

Marlene Stümpflen; Vienna / Austria

In utero tractography of the ganglionic eminence in the human fetal brain (8 min)

Christian Mitter; Vienna / Austria

Fetal 4D flow MRI of the thoracic aorta at 3 Tesla using Doppler-ultrasound gating (8 min)

Alexander Lenz; Hamburg / Germany

In utero effects of prenatal alcohol exposure on the human fetal brain: an atlas-based MRI study (8 min)

Marlene Stümpflen; Vienna / Austria

Normogram on transfontannelle Doppler indices and cerebral blood flow velocities in healthy preterm and term neonates within 72 hours of life (8 min)

Kajal Manojkumar Limbad; Vadodara / India

A novel nomogram based on volumetric quantitative MRI and clinical features for the prediction of neonatal intracranial hypertension (8 min)

Yan Qin; Changsha / China

Sevoflurane sedation in children leads to "pseudo" leptomeningeal enhancement in brain on 3-Tesla MRI; a singlecentre study. (8 min)

Kiran Hilal; Karachi / Pakistan

Dual-layer spectral CT improves image quality of paediatric cerebral unenhanced CT scan (8 min)

Jing Wang; Wuhan / China

Gadolinium-based contrast agents can cross non-nervous cell membranes rather than remain confined to the extracellular compartment of the central nervous system (8 min)

Floriana Floriana Zennaro; Trieste / Italy



 $\textbf{Application of three-dimensional arterial spin labelling (3D-ASL) perfusion imaging in the brain of children with autism (8 \min)$ 

Shilong Tang; Chongqing / China

MRI of the optic nerve: evaluation of reference values in children and adolescents (8 min)

Hans-Joachim Mentzel; Jena / Germany



#### **RPS 1816 - Genito-urinary tumours**

Categories: Abdominal Viscera, Genitourinary, Imaging Methods, Oncologic Imaging

Date: July 16, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

#### **Moderator:**

Davide Prezzi; London / United Kingdom

Repeatability of quantitative individual lesion and total disease multiparametric whole-body MRI measurements in prostate cancer bone metastases (8 min)

Ricardo Donners; Basel / Switzerland

Hyperpolarised 13C-pyruvate MRI as a non-invasive read-out of tumour grade in renal cell carcinoma (8 min)

Stephan Ursprung; Tübingen / Germany

Early reduction in spectral dual-layer detector CT parameters as favourable imaging biomarkers in patients with metastatic renal cell carcinoma (8 min)

Aska Drljevic-Nielsen; Aarhus N / Denmark

Evaluation of immunotherapy response with CT histogram analysis in metastatic Renal Cell Carcinoma (8 min)

Sıla Cankaya; Ankara / Turkey

Validation of PI-RADS v2 for detection of prostate cancer among readers with different degree of experience using US/MRI fusion guided prostate biopsy as reference standard (8 min)

Jinxing Yu; Richmond / United States

Utility of IVIM combined with APTw value to evaluate Gleason grading of prostate cancer (8 min)

Yunsong Liu; Dalian / China

Repeatability and reproducibility of fat-fraction in prostate cancer patients with bone metastases: intra and interreader agreement of single-slice and volumetric first-order features (8 min)

Chiara Saeli; Brescia / Italy

The estimated volume index (EVI); a new practical approach for treatment response monitoring in advanced ovarian cancer patients treated with neoadjuvant chemotherapy (8 min)

Eva Berardi; Roma / Italy

CT radiomic based models to predict residual disease and early recurrence in primary debulked ovarian cancer (8 min)

Gregorio Aluffi; Verona / Italy



Histogram analysis for characterisation of indeterminate adrenal nodules (8 min)

Abdellatif Masmoudi; Tunis / Tunisia





#### RPS 1805b - Artificial intelligence (AI) in prostate imaging

Categories: Artificial Intelligence & Machine Learning, Genitourinary, Imaging Informatics, Oncologic Imaging

Date: July 16, 2022 | 10:30 - 11:30 CEST

**CME Credits:** 1

**Moderator:** 

Sergey Morozov; Liège / Belgium

Feasibility of prostate mpMRI sequence classification based on deep learning (8 min)

Zhaonan Sun; Beijing / China

Metadata-independent classification of MRI sequences using convolutional neural networks: successful application to prostate MRI (8 min)

Georg Lukas Baumgärtner; Berlin / Germany

Characterisation of prostate cancer at multiparametric MRI using machine learning: development and assessment of a zone-specific computer-aided diagnosis system (8 min)

Tristan Jaouen; LYON CEDEX 03 / France

Interactive deep-learning-based real-time three-dimensional lesion segmentation from single point seeds in prostate MRI (8 min)

Adrian Schrader; Heidelberg / Germany

Al assisted biparametric MRI surveillance of prostate cancer: feasibility study (8 min)

Christian Roest; Groningen / Netherlands

Accelerated T2-weighted TSE imaging of the prostate using deep learning image reconstruction: a prospective comparison with standard T2-weighted TSE imaging (8 min)

Sebastian Gassenmaier; Tuebingen / Germany

Detection and segmentation of pelvic bones metastases on DWI images for patients with prostate cancer based on deep learning (8 min)

Xiang Liu; Beijing / China



#### RPS 1804 - The evolution of COVID imaging

Categories: Artificial Intelligence & Machine Learning, Chest, Imaging Methods

Date: July 16, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

Moderator:

Eva Kocova; Hradec Kralove / Czechia

Long-term follow-up of pulmonary arterial circulation after hospitalisation for SARS-CoV-2 pneumonia: dual-energy CT angiographic study in 79 patients (8 min)

Martine Rémy-Jardin; Lille / France

The impact of vaccination on the severity of COVID-19 pneumonia: effectiveness of mRNA and adenovirus vector vaccines and comparison between vaccinated and unvaccinated patients (8 min)

Simone Vicini; Latina (LT) / Italy

Does submillisievert chest CT imaging impair diagnostic value in patients with suspected SARS-CoV-2 infection (8 min) Hans-Martin Thieß; Berlin / Germany

Possible alterations of imaging patterns in computed tomography for Delta-VOC of SARS-CoV-2 (8 min)

Can Yueksel; Aachen / Germany

Impact of vaccination on COVID-related pneumonia: use of "CT severity score" in vaccinated and non-vaccinated patients during SARS-CoV-2 infection (8 min)

Giorgio Maria Masci; Rome / Italy

Diagnostic performance in differentiating COVID-19 from other viral pneumonias on CT imaging: multi-reader analysis compared with an artificial intelligence model (8 min)

Francesco Rizzetto; Rho / Italy

A combined risk model using imaging and clinical parameters in COVID-19 patients from a nationwide German cohort to predict disease progression (8 min)

Rebecca Armbruster; Frankfurt / Germany

Risk stratification of hospitalised patients with COVID-19 pneumonia by chest radiograph scoring in a tertiary hospital in Johannesburg, South Africa (8 min)

Hendrik Christiaan Labuschagne; Johannesburg / South Africa

Chest CT characteristics are strongly predictive of mortality in patients with COVID-19 pneumonia: a multicentric cohort study (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

Damien Geindreau; London / United Kingdom

Text mining of radiology reports to calculate "number needed to image" for the detection of pulmonary infection shows seasonality and real-time course of the COVID-19 pandemic (8 min)

Tobias Heye; Basel / Switzerland





#### RPS 1811 - Advanced neuroimaging in various diseases

Categories: Artificial Intelligence & Machine Learning, Imaging Methods, Neuro

Date: July 16, 2022 | 10:30 - 11:30 CEST

**CME Credits:** 1

#### **Moderator:**

Sven Haller; Geneve / Switzerland

Distinct brain structural-functional network topological coupling explains different outcomes in tinnitus patients treated with sound therapy (8 min)

Qian Chen; Beijing / China

Periventricular radiomic features in differentiating neuromyelitis optica spectrum disorder (NMOSD) and multiple sclerosis (MS) (8 min)

Viknesh Balasingam; Klang / Malaysia

Intraspinal stem cell infusion in amyotrophic lateral sclerosis patients: longitudinal analysis of MR spectroscopy ratios, cortical thickness, clinical parameters and survival (8 min)

Carmen Trejo Gallego; Murcia / Spain

Validation of automated MS lesion detection in two independent cohorts (8 min)

Peter Ngum; Turku / Finland

Comparison of quick-brain and routine-brain image quality measured via MRQy, an open-source quality-control tool for imaging (8 min)

Bronson Michael Ciavarra; Richmond / United States

Radiomics in MRI in the study of patients with multiple sclerosis (8 min)

Melania Stubos; Trieste / Italy

Left inferior frontal gyrus neuroplastisity during novel speech-sound learning: an fMRI and DTI study (8 min)

Sahal Saad AL Otaibi; Liverpool / United Kingdom



#### RPS 1801 - New techniques in abdominal imaging

Categories: Abdominal Viscera, Contrast Media, Gl Tract, Imaging Methods, Research

Date: July 16, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Monique Maas; Amsterdam / Netherlands

Value of dual-energy CT late arterial phase iodine maps for the diagnosis of acute bowel ischaemia: initial results (8

mın

Christian Booz; Frankfurt / Germany

Liver and spleen MR elastography, T1/T2 mapping for detection-staging of liver fibrosis and prediction of oesophageal varices (8 min)

Gökhan Mert Özyurt; Yenisehir mersin / Turkey

Assessing pancreatic fibrosis and treatment response with dynamic contrast-enhanced MRI: an experimental chronic pancreatitis animal model induced by dibutyltin dichloride (8 min)

Yimei Lu; Shanghai / China

Non-alcoholic fatty pancreatic disease determined by unenhanced CT: evaluation of the association with hepatosteatosis, visceral adiposity and epicardial adipose tissue volume (8 min)

Gülsüm Kübra Bahadır; ANKARA / Turkey

Bowel preparation in MRI for detection of endometriosis: comparison of the effect of an enema, no additional medication and intravenous butylscopolamine on image quality (8 min)

Isabeau Ciggaar; The Hague / Netherlands

Growth kinetics of pancreatic neuroendocrine tumours by histopathologic grade (8 min)

Justin Ruey Tse; Stanford / United States

An imaging spectrum of IgG4-RD with analysis of post-treatment imaging response (8 min)

Nikrish S Hegde; Mumbai / India

Effect of an online reference system on the diagnosis of rare abdominal tumours (8 min)

Matthias Michael Woeltjen; Minden / Germany

Single vs. multi-level comparison of visceral fat estimation on abdominal CT (8 min)

Varut Vardhanabhuti; Hong Kong / Hong Kong SAR China



The integrative role of magnetic resonance cholangiopancreatography and percutaneous transhepatic cholangiography in malignant obstructive jaundice (8 min)

Omar Mohamed Atef Omar Hamada; Cairo / Egypt



# **CUBE 19 - Case studies presented through quiz**

Categories: Emergency Imaging, Interventional Radiology, Neuro, Vascular

ETC Level: LEVEL II

Date: July 16, 2022 | 10:30 - 11:00 CEST

CME Credits: 0.5

Quiz (30 min)

Riyad Hanafi; Lille (La Madeleine) / France



# OF 18Y - Career paths: subspecialisation (part 2)

Categories: Education, General Radiology, Multidisciplinary, Professional Issues, Students

**ETC Level:** ALL LEVELS

Date: July 16, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

#### **Moderator:**

Apostolos H. Karantanas; Heraklion / Greece

#### **Chairperson's introduction** (5 min)

Apostolos H. Karantanas; Heraklion / Greece

#### **Breast imaging (EUSOBI)** (10 min)

Pascal A.T. Baltzer; Vienna / Austria

#### GI and abdominal imaging (ESGAR) (10 min)

Andrea Laghi; Roma / Italy

#### Interventional oncology (CIRSE) (10 min)

Fernando Gomez Muñoz; Barcelona / Spain José María Balibrea Del Castillo; Barcelona / Spain

Discussion (25 min)



# E<sup>3</sup> 1831 - Common and less common pleural neoplasms: a multidisciplinary approach

Categories: Chest, Multidisciplinary, Oncologic Imaging

**ETC Level:** ALL LEVELS

Date: July 16, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Marie-Pierre Revel; Paris / France

Chairperson's introduction (5 min)

Marie-Pierre Revel; Paris / France

How to manage pleural neoplasms: the clinician's perspective (15 min)

Nicolas Girard; Paris / France

How to diagnose and stage malignant mesothelioma (10 min)

Fergus Gleeson; Oxford / United Kingdom

Less common pleural malignancies: how to recognise them on CT (15 min)

Marie-Pierre Revel; Paris / France

Multidisciplinary tumour board: case-based panel discussion (45 min)

Marie-Pierre Revel; Paris / France Thomas Klikovits; Vienna / Austria



# RT 18 - Building bridges: interventional oncology, one of the four pillars in cancer care

Categories: Interventional Radiology, Multidisciplinary, Oncologic Imaging, Professional Issues, Radiographers

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

#### **Moderators:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands

Carlo Catalano; Roma / Italy

#### Chairpersons' introduction (2 min)

Regina G. H. Beets-Tan; Amsterdam / Netherlands

Carlo Catalano; Roma / Italy

#### Interventional oncology: one of the four pillars in cancer care (8 min)

Thomas K. Karl Helmberger; Munich / Germany

#### Surgical oncology: towards minimally invasive (8 min)

Guido Torzilli; Rozzano (Milan) / Italy

#### Medical oncology: complementary to local treatment (8 min)

Andres Cervantes; Valencia / Spain

#### **Discussion** (34 min)

Thomas K. Karl Helmberger; Munich / Germany

Adrian Brady; Cork / Ireland

Guido Torzilli; Rozzano (Milan) / Italy Andres Cervantes; Valencia / Spain



#### RC 1815 - To be up to every trick: revascularisation techniques to master complex vascular cases

Categories: Cardiac, Interventional Radiology, Neuro, Vascular

ETC Level: LEVEL III

Date: July 16, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

**Moderator:** 

Raman Uberoi; Oxford / United Kingdom

**Chairperson's introduction** (5 min) Raman Uberoi; Oxford / United Kingdom

**Re-entry techniques** (10 min) Ralph Kickuth; Würzburg / Germany

**Atherectomy and thrombectomy** (10 min) Ulf Karl Martin Teichgräber; Jena / Germany

**Pedal arch revascularisation: everything that you need to know** (10 min) Lorenzo Patrone; London / United Kingdom

**Venous arterialisation for critical limb ischaemia (CLI)** (10 min) Costantino Del Giudice; Paris / France

Panel discussion: Techniques for everyone? (15 min)



# RC 1803 - Imaging patients at risk of sudden cardiac death

Categories: Cardiac, Emergency Imaging, Imaging Methods, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

**Moderator:** 

Jan Bogaert; Leuven / Belgium

Chairperson's introduction (5 min)

Jan Bogaert; Leuven / Belgium

Assessing cardiomyopathy and cardiac risk with MRI (15 min)

Declan O'Regan; London / United Kingdom

Imaging prior to ablation of ventricular arrhythmia (15 min)

Hubert Cochet; Pessac / France

Cardiac devices: how to image the patient and optimise image quality (15 min)

Antonio Esposito; Milano / Italy

Panel discussion: How should we determine who is at risk of sudden cardiac death? Is screening the answer? (10 min)



#### OF 18R - Cardiac: protocols for imaging

Categories: Cardiac, Imaging Methods, Radiographers

Date: July 16, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

**Moderator:** 

Martin Weber Kusk; Esbjerg / Denmark

**Cardiac CT: presentation radiographer** (10 min)

Marcel L. Dijkshoorn; Rotterdam / Netherlands

Cardiac CT: presentation radiologist (10 min)

Ricardo P. J. Budde; Rotterdam / Netherlands

**Discussion** (10 min)

Cardiac MRI: presentation radiographer (10 min)

Niels Blanken; Utrecht / Netherlands

Cardiac MRI: presentation radiologist (10 min)

Dietrich Beitzke; Vienna / Austria

Discussion (10 min)



# OF 18b - Safety in radiology: advancing medical imaging to the next level with EIBIR support

Categories: Contrast Media, EuroSafe Imaging/Radiation Protection, Imaging Methods, Management/Leadership, Research

ETC Level: LEVEL III

Date: July 16, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

#### **Moderators:**

Gabriel P. Krestin; Rotterdam / Netherlands Marion Smits; Rotterdam / Netherlands

#### Chairperson's introduction (5 min)

Gabriel P. Krestin; Rotterdam / Netherlands

Alternatives to gadolinium: developing an alternative to gadolinium-based contrast agents (GBCAs) (15 min)

Rachel Katz-Brull; Jerusalem / Israel

Radiation risk appraisal for detrimental effects from radiation exposure during the management of patients with cancer: the SINFONIA project (15 min)

Alexandru Dasu; Uppsala / Sweden

EIBIR activities and upcoming funding opportunities (10 min)

Peter Gordebeke; Vienna / Austria

Open forum discussion (15 min)



# IF 18 - Early detection and early diagnosis of prostate cancer, lung cancer and the involvement of radiologists

Categories: Chest, General Radiology, Genitourinary

Date: July 16, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

#### **Moderators:**

Gualtiero Walter Ricciardi; Rome / Italy Tobias Penzkofer; Berlin / Germany

Introduction (10 min)

Gualtiero Walter Ricciardi; Rome / Italy

Radiology in the 2021 guidelines on the early detection and diagnosis of prostate cancer (10 min)

Tobias Penzkofer; Berlin / Germany

The patient's view on early detection and diagnosis of prostate cancer (10 min)

Erik Briers; Brussels / Belgium

Lung cancer early detection and diagnosis: the value of radiology (10 min)

Caro Franck; Edegem / Belgium

The patient's view on early detection and diagnosis of lung cancer (10 min)

Anne Marie Baird; Dublin / Ireland

Panel discussion: How can we reach the objectives to organise early detection and diagnosis of cancers in Europe for high prevalence cancers? (10 min)



#### E<sup>3</sup> 30D - Better, faster, and artificial intelligence (AI)-driven MR imaging

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Imaging Methods, Neuro

ETC Level: LEVEL I+II

Date: July 16, 2022 | 10:30 - 11:30 CEST

CME Credits: 1

#### **Moderator:**

Xavier Xavier Golay; London / United Kingdom

An introduction to MRI fingerprinting (20 min)

VeraC. Keil; Bonn / Germany

Is a 1-minute Al-driven brain MRI a feasible option for routine imaging? (20 min)

Head-only MRI scanners: why they have not yet happened, or have they? (20 min)

Thomas O'Reilly; Leiden / Netherlands



#### E<sup>3</sup> 1821 - Pelvic pain in female patients

Categories: Abdominal Viscera, Emergency Imaging, Genitourinary, Imaging Methods, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

Acute pain (45 min)

Milagros Otero Garcia; Vigo / Spain

Chronic pain (45 min)

Marcia Javitt; CHEVY CHASE / United States



#### E<sup>3</sup> 1820 - Colorectal cancer liver metastases: a multidisciplinary management of tricky cases

Categories: Abdominal Viscera, GI Tract, Interventional Oncologic Radiology, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Ahmed Ba-Ssalamah; Vienna / Austria

**Chairperson's introduction** (5 min) Ahmed Ba-Ssalamah; Vienna / Austria

Colorectal liver cancer metastases: critical appraisal of current imaging techniques (15 min)

Ahmed Ba-Ssalamah; Vienna / Austria

How to manage colorectal cancer liver metastases and disappearing colorectal cancer liver metastases: the role of surgery (15 min)

Stefan Stättner; Vöcklabruck / Austria

The role of interventional radiology (15 min)

Martijn Ruben Meijerink; Amsterdam / Netherlands

Multidisciplinary tumour board: case-based panel discussion (40 min)

Ahmed Ba-Ssalamah; Vienna / Austria



# E<sup>3</sup> 1819 - Bone tumours: a multidisciplinary approach

Categories: Imaging Methods, Multidisciplinary, Musculoskeletal, Oncologic Imaging

ETC Level: LEVEL III

Date: July 16, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

**Moderator:** 

Koenraad Verstraete; Sint-Michiels / Belgium

**Chairperson's introduction** (5 min)

Koenraad Verstraete; Sint-Michiels / Belgium

Optimal radiology of bone tumours: which questions need addressing? (15 min)

Koenraad Verstraete; Sint-Michiels / Belgium

What does the oncologic orthopaedic surgeon need from the radiologist? (15 min)

Gwen Sys; Ghent / Belgium

Panel discussion: The MDT on bone tumours (55 min)

Koenraad Verstraete; Sint-Michiels / Belgium

Gwen Sys; Ghent / Belgium



#### E<sup>3</sup> 1818 - Peritoneal carcinomatosis in ovarian cancer: a multidisciplinary approach in real life

Categories: Genitourinary, GI Tract, Imaging Methods, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 10:30 - 12:00 CEST

CME Credits: 1.5

#### **Moderator:**

Stephanie Nougaret; St Clement de Riviere / France

#### Chairperson's introduction (5 min)

Stephanie Nougaret; St Clement de Riviere / France

Is my patient a good candidate for hyperthermic intraperitoneal chemotherapy (HIPEC)? The surgeon's perspective (15

min

François Quenet; Montpellier / France

What the surgeon and gynaecological oncologist expect from the radiologist: the radiologist's perspective (15 min)

Stephanie Nougaret; St Clement de Riviere / France

Multidisciplinary tumour board: case-based panel discussions (55 min)

Stephanie Nougaret; St Clement de Riviere / France



# Al 17 - Labyrinth of EU Al Regulations

Categories: Artificial Intelligence & Machine Learning

Date: July 16, 2022 | 12:00 - 13:00 CEST

**Moderator:** 

Alexander Boehmcker; Barcelona / Spain

Introduction (3 min)

Alexander Boehmcker; Barcelona / Spain

Labyrinthof EU AI Regulations (42 min)

Kerstin Noëlle Vokinger; Zurich / Switzerland

**Q&A** (15 min)



#### E<sup>3</sup> 25E - Chronic pancreatitis

Categories: Abdominal Viscera, GI Tract, Imaging Methods

ETC Level: LEVEL I+II

Date: July 16, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Wolfgang Schima; Vienna / Austria

**How to diagnose and classify** (30 min) Fatih Akisik; Indianapolis / United States

Functional evaluation of chronic pancreatitis (30 min)

Riccardo Manfredi; Roma / Italy



# OF 19a - How to get my manuscript accepted: tips and tricks from the editors

Categories: Education, General Radiology, Research

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Marion Smits; Rotterdam / Netherlands

**Chairperson's introduction** (5 min) Marion Smits; Rotterdam / Netherlands

How to "polish" a submission (5 min)

Yves Menu; Paris / France

How to reply to reviewers' criticism (5 min)

Francesco Sardanelli; San Donato Milanese, Milan / Italy

How to manage critical reviews (5 min)

Luis Marti-Bonmati; Valencia / Spain

Open forum discussion (40 min)



# Meets 19 - Practicing a multidisciplinary approach in Ukrainian radiology

Categories: Artificial Intelligence & Machine Learning, Genitourinary, Hybrid Imaging, Multidisciplinary, Ultrasound

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

#### **Moderators:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands Tetyana Yalynska; Kyiv / Ukraine

#### Welcome by the ESR president (2 min)

Regina G. H. Beets-Tan; Amsterdam / Netherlands

Introduction: Ukrainian radiologists on the way to new achievements as part of multidisciplinary teams (7 min)

Tetyana Yalynska; Kyiv / Ukraine

Radiogenomics of the renal cell carcinoma: a multidisciplinary approach (15 min)

Yulian Mytsyk; Lviv / Ukraine

Multiparametric ultrasound diagnostic (mp-US) of non-alcoholic fatty liver disease (NAFLD) and ist complications (15

min)

Oleg Dynnyk; Kyiv / Ukraine

Additive value of hybrid imaging in the multidisciplinary team management of oncologic patients (15 min)

Mykola Novikov; Kyiv / Ukraine

Panel discussion: How do the advances in radiology affect the personification of medical care? (6 min)



# IF 19b - Relaxation: quick communication training BATHEing method

Categories: General Radiology, Multidisciplinary, Radiographers

Date: July 16, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

#### **Moderators:**

Andrea Grace Rockall; Godalming / United Kingdom

Caroline Justich; Vienna / Austria

An introduction to Mindfulness Based Stress Release (MBSR) (30 min)

Michaela Kainz; Vienna / Austria

Why the right doctor-patient interaction is so important and what is planned to achieve the goal (20 min)

Andrea Grace Rockall; Godalming / United Kingdom

An introduction to the BATHing method (10 min)

Caroline Justich; Vienna / Austria



#### PP 19 - Breast diseases and paediatric imaging

Categories: Breast, Paediatric Imaging, Radiographers

Date: July 16, 2022 | 12:30 - 13:30 CEST

**CME Credits:** 1

#### **Moderator:**

Wendelien Sanderink; Nijmegen / Netherlands

Calcifications with suspicious morphology: CESM findings and radiologic-pathologic correlation (8 min)

Daniel Calvo Gijón; Sevilla / Spain

Imaging features of breast disease in PHTS women (8 min)

Alma Hoxhaj; Amsterdam / Netherlands

Unilateral axillary lymphadenopathy after COVID-19 vaccination: a pictorial review (8 min)

Ana Teresa Teixeira; Algés / Portugal

Performance and dose dependency of computer-aided detection (CAD) of pulmonary nodules in tin-filtered paediatric ultra low dose chest CT (8 min)

Philipp Josef Kuhl; Würzburg / Germany

Neonatal lung ultrasound guidelines: radiologists or neonatologists? (8 min)

Alba Maria Castaño Ramirez; Málaga / Spain

Use of arterial spin labelling (ASL) perfusion in the evaluation of paediatric patiens with new onset focal neurological deficit in acute settings (8 min)

Francesco Dellepiane; Rome / Italy

Feasibility of contrast enhanced voiding urosonography for the assessment of vesico-ureteral reflux in children with UTI (8 min)

Sonia Tamasi; Naples / Italy

Diagnostic accuracy of post-mortem imaging compared to conventional autopsy in identifying the cause of death in children: a systematic review (8 min)

Salman Ziyad Almutairi; Sheffield / United Kingdom

Evaluation of pectus excavatum deformity through computed tomography in a paediatric population (8 min)

Daniela Antunes Santos; Santarém / Portugal



# IF 19a - Communication between radiologist and patient in 2030: ways towards digital health solutions

Categories: Artificial Intelligence & Machine Learning, General Radiology, Professional Issues

Date: July 16, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

#### **Moderators:**

Adrian Brady; Cork / Ireland Erik Briers; Brussels / Belgium

Introduction: the way towards digitalised medicine (5 min)

Adrian Brady; Cork / Ireland

The radiologist's view on their digital future (10 min)

Elmar Kotter; Freiburg / Germany

 $\textbf{How secured digital communication can be provided between doctors, patients and other health care providers (10 \ \text{min}) \\$ 

Anne Busch; Wiener Neustadt / Austria

The underprivileged patient and the drive towards the digital world (10 min)

Erik Briers; Brussels / Belgium

Panel discussion: How can we maximise the valuable effects of digital health solutions in a world where, even today, so many have no connection to the digital world and lack digital skills and even learning capacity? (25 min)



# E<sup>3</sup> 30E - What is new in the imaging of brain tumours

Categories: Imaging Methods, Neuro, Oncologic Imaging

ETC Level: LEVEL I+II

Date: July 16, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Birgit B. Ertl-Wagner; Toronto / Canada

How to report follow-up examinations in patients with brain tumours (20 min)

Alessandro Cianfoni; Rome / Italy

A critical appraisal of advanced imaging techniques in brain tumours (20 min)

Simona Gaudino; Roma / Italy

Imaging findings in unusual brain tumours (20 min)

Antonella Castellano; Milano / Italy



# RC 1910 - Pros and cons: MRI is the preferred imaging modality in musculoskeletal imaging

Categories: Imaging Methods, Interventional Oncologic Radiology, Musculoskeletal, Oncologic Imaging, Professional Issues

ETC Level: LEVEL III

Date: July 16, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Anagha P. Parkar; Bergen / Norway

Chairperson's introduction (5 min)

Anagha P. Parkar; Bergen / Norway

**PRO** (15 min)

Alexandra Sophia Gersing; Munich / Germany

**CON** (15 min)

Alain Blum-Moyse; Nancy / France

Panel discussion: Overall clinical use of MRI versus dual energy CT in MSK practice (strengths, weaknesses, and pitfalls) and how to implement it (25 min)





#### E<sup>3</sup> 24E - Is it a bone tumour?

Categories: General Radiology, Imaging Methods, Musculoskeletal, Neuro, Oncologic Imaging

ETC Level: LEVEL I+II

Date: July 16, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

#### **Moderator:**

Violeta Vasilevska Nikodinovska; Skopje / Macedonia

The lytic lesion (18 min)

Üstün Aydingöz; Ankara / Turkey

The sclerotic lesion (18 min)

Johan L. Bloem; Leiden / Netherlands

Pseudotumours (18 min)

Apostolos H. Karantanas; Heraklion / Greece

Panel discussion (6 min)



# **BS 19 - Enhancing radiographer communication**

Categories: EuroSafe Imaging/Radiation Protection, Professional Issues, Radiographers, Students

Date: July 16, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

#### **Moderator:**

Berit Møller Møller Christensen; Jönköping / Sweden

#### **Optimising communication strategies** (18 min)

Amy (nee Taylor; Exeter / United Kingdom

#### Communicating benefit versus risk (18 min)

Jonathan Loui Portelli; Msida / Malta

#### Patient-centred care and communication (18 min)

Emma Hyde; White - British / United Kingdom

Panel discussion: How can we achieve enhanced communication whilst being time effective? (6 min)



# OF 19Y - Career paths: research

Categories: Education, Professional Issues, Research, Students

**ETC Level:** ALL LEVELS

Date: July 16, 2022 | 12:30 - 13:30 CEST

**CME Credits:** 1

**Moderator:** 

Valérie Vilgrain; Clichy / France

Chairperson's introduction (2 min)

Valérie Vilgrain; Clichy / France

How to build/facilitate a research career (10 min)

Jaap Stoker; Amsterdam / Netherlands

The young academic radiologist: what are the attractions and difficulties (10 min)

Discussion (38 min)



# RT 19 - Building bridges: endovascular treatment (EVT) of acute ischaemic stroke - optimising stroke networks

Categories: Emergency Imaging, Interventional Radiology, Multidisciplinary, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 12:30 - 13:30 CEST

**CME Credits:** 1

#### **Moderator:**

Wim van Zwam; Maastricht / Netherlands

**Chairperson's introduction** (2 min) Wim van Zwam; Maastricht / Netherlands

What is a spoke and hub, drip 'n' ship, drip 'n' drive or a level 1, 2 and 3 stroke centre? (8 min)

Marios-Nikos Psychogios; Basel / Switzerland

Bypassing primary stroke centres: when to do it and when not? (8 min)

Marc Ribo; Barcelona / Spain

When there are not enough INRs: are other specialists a helping hand or a threat? (8 min)

Marta Rubiera; Barcelona / Spain

Discussion (34 min)

Valeria Caso; Perugia / Portugal

Marios-Nikos Psychogios; Basel / Switzerland

Marc Ribo; Barcelona / Spain Marta Rubiera; Barcelona / Spain



# RC 1906 - State of the art and emerging applications for PET

Categories: Hybrid Imaging, Molecular Imaging, Nuclear Medicine, Oncologic Imaging, Translational Imaging

ETC Level: LEVEL II

Date: July 16, 2022 | 12:30 - 13:30 CEST

CME Credits: 1

**Moderator:** 

Frédéric Lecouvet; Brussels / Belgium

**Chairperson's introduction** (5 min)

Frédéric Lecouvet; Brussels / Belgium

The potential of novel PET tracers (15 min)

Daniela Elena Oprea-Lager; Amsterdam / Netherlands

Clinical applications for PET/MRI (15 min)

Lale Umutlu; Essen / Germany

Total-body PET (TBP) as a new tool (15 min)

Axel Rominger; Bern / Switzerland

Panel discussion: Which modality will predominate in cancer imaging in 10 years' time? (10 min)



# Al 19 - Data sharing with Industry for Al: practical, scientific, legal and ethical Issues

Categories: Artificial Intelligence & Machine Learning

Date: July 16, 2022 | 14:00 - 15:00 CEST

**Moderator:** 

Wim Van Hecke; icometrix / Belgium

Introduction (3 min)

Wim Van Hecke; Icometrix / Belgium

Panel Discussion (57 min)

Elmar Kotter; Freiburg / Germany Daniele Regge; Torino / Italy David Kniß; Erlangen / Germany Erik R. Ranschaert; Turnhout / Belgium

Antoine Jomier; Paris / France

Angel Alberich-Bayarri; Valencia / Spain



# **CUBE 20 - Alternate routes for Neurointerventions**

**Categories:** Interventional Radiology **Date:** July 16, 2022 | 14:00 - 14:30 CEST

CME Credits: 0.5

Alternate routes for Neurointerventions (30 min)

Géraud Forestier; Saignes / France



#### RPS 2011 - Imaging in neuro-psychiatric diseases

**Categories:** Imaging Methods, Neuro **Date:** July 16, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Sofie Van Cauter; Holsbeek / Belgium

Shared grey matter alterations in subtypes of addiction: a voxel-wise meta-analysis (8 min)

Mengzhe Zhang; Zhengzhou / China

Functional networks stability in patients affected by autism compared to healthy controls: a possible novel biomarker from resting-state fMRI (8 min)

Luca Pasquini; Rome / Italy

Disrupted causal connectivity anchored on the anterior portion of the insula in first-episode medication-naive major depressive disorder (8 min)

Hong Yang; Hangzhou / China

Functional magnetic resonance study of static and dynamic amplitude of low frequency fluctuation in smoking addicted males (8 min)

Xinyu Gao; Zhengzhou City / China

Young subjects at risk of psychosis show specific features of cortical thinning (8 min)

Luca Melazzini; Pavia / Italy

Structural and functional brain abnormalities in internet gaming disorder and attention-deficit/hyperactivity disorder: a comparative meta-analysis (8 min)

Xinyu Gao; Zhengzhou City / China

Functional connectivity differences between the patients with disorders of consciousness and the patients with clinical cognitive motor dissociation (8 min)

Polona Pozeg; Lausanne / Switzerland

Disrupted functional connectivity of amygdala subregional networks in social anxiety disorder (8 min)

Xun Zhang; Chengdu / China

Relationship between fractional anisotropy of the external capsule and hippocampal myo-inositol levels in patients with mild cognitive impairment: evidence from DTI-1H-MRS pilot study (8 min)



Kristina Valatkevičienė; Kaunas / Lithuania

Alternations in dynamic and static functional connectivity density in chronic smokers (8 min)

Zhengui Yang; Zhengzhou / China

Hypothalamic paraventricular nucleus inputs to the cingulate cortex and paraventricular thalamic nucleus modulate anxiety and arousal (8 min)

Ying Liu; Nanchang / China



#### RPS 2014 - Risk reduction and quality assurance in radiographic practice

Categories: EuroSafe Imaging/Radiation Protection, Imaging Methods, Professional Issues, Radiographers

Date: July 16, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

#### **Moderators:**

Luis Lanca; Lisboa / Portugal Annalisa Trianni; Trento / Italy

X-ray scatter correction software for improving image quality and reducing radiation dose in large anatomical regions

(8 min)

Mohammad Faya Sayed; Exeter / United Kingdom

What determines a good skeletal X-ray image? Expert annotation of lateral ankle-joint positioning in 2D skeletal X-ray imaging using a standardised tool (8 min)

Omar Hertgers; Den Haag / Netherlands

Trabecular bone score (TBS) role in fracture risk assessment (8 min)

Liliana Rodrigues; Exeter / United Kingdom

Technical ultrasonic quality assurance in Danish radiological departments (8 min)

Kristina Thybo Tellquist Rasmussen; Børkop / Denmark

Image quality evaluation of on-centre and off-centre FOV in cardiac CT examination (spatial resolution and motion artifacts) (8 min)

Katsumi Tsujioka; Toyota-City Aichi / Japan

Dual-energy CT: reduction of metal artifacts in the skeletal-muscle system (8 min)

Mário Monteiro; COIMBRA / Portugal

Characterisation of national radiotherapy departments: organisation, occupational exposure values and local diagnostic reference levels for breast and prostate CT-planning (8 min)

Rafaela Guisantes; Coimbra / Portugal

Development of a patient face recognition system in the radiology department (demonstration study of a face mask-enabled face recognition system in a CT examination environment) (8 min)

Hiroyuki Ota; Kashiwa, Chiba pref / Japan

Explaining radiation risk: an investigation of approaches preferred by Irish patients (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

Kate Matthews; Dublin / Ireland

**NiFi: an open source application for secure and efficent handling of image data for radiographic studies** (8 min) Martin Weber Kusk; Esbjerg / Denmark



# **RPS 2002 - Advances in mammography**

Categories: Artificial Intelligence & Machine Learning, Breast, Imaging Methods, Translational Imaging

Date: July 16, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

#### **Moderator:**

Alaa Abdulrahman Marzogi; Makkah / Saudi Arabia

Automated detection and BI-RADS classification of breast masses in digital mammographic views, enhanced by subtracting temporally consecutive mammograms (8 min)

Galateia Skouroumouni; Larnaca / Cyprus

Density and breast cancer risk score in a screening cohort using participant-completed digital questionnaires (8 min) Nicholas Payne; Cambridge / United Kingdom

Bridging the gap in automatic breast density estimation for screening personalisation (8 min)

Riccardo Samperna; Nijmegen / Netherlands

Missed cancer detection in mammography with artificial intelligence (8 min)

GaEun Park; Seoul / Korea, Republic of

Artificial intelligence model for personalising educational mammography test sets for diagnosticians (8 min)

Patrick Brennan; Sydney / Australia

The opportunity for AI to evaluate mammography positioning criteria at a population level (8 min)

Nisha Sharma; Leeds / United Kingdom

Simultaneous digital breast tomosynthesis and mechanical imaging of a deformable physical phantom (8 min)

Rebecca Axelsson; Malmö / Sweden

Propagation-based phase-contrast breast imaging: an investigation of the performance of photon-counting and flatpanel x-ray detectors (8 min)

Nicola Giannotti; Sydney / Australia

Head-to-head comparison of contrast-enhanced mammography and contrast-enhanced MRI of the breast: a meta-

analysis (8 min)

Nina Pötsch; Wien / Austria



# BUILDING BRIDGES JULY 13-17 | VIENNA

Breast tomosynthesis reduces radiation exposure in specific patient populations (8 min)

Bruno Barufaldi; Philadelphia / United States





# RC 2012 - Imaging in congenital heart disease (CHD)

Categories: Cardiac, Imaging Methods, Paediatric Imaging

ETC Level: LEVEL III

Date: July 16, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

#### **Moderator:**

Lene Kathrine Rydén Suther; Oslo / Norway

# Chairperson's introduction (5 min)

Lene Kathrine Rydén Suther; Oslo / Norway

#### CT and MRI in neonates and infants with congenital heart disease (15 min)

Aurelio Secinaro; Rome / Italy

#### CT and MRI in grown-up congenital heart disease (GUCH) patients (15 min)

Karl-Friedrich Kreitner; Mainz / Germany

#### Extra-cardiac complications in congenital heart disease (15 min)

CharlotteE. de Lange; Gothenburg / Sweden

Panel discussion: Multi-modality imaging approach to CHD (10 min)



# BS 20 - Raising awareness of justification issues to promote best practice

Categories: EuroSafe Imaging/Radiation Protection, Imaging Methods, Professional Issues, Radiographers, Students

Date: July 16, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Graciano Paulo; Coimbra / Portugal

Current legislation and justification guidelines (25 min)

Shane J Foley; Dublin / Ireland

Enhancing radiographers' knowledge for projection radiography justification (25 min)

Maria Cauchi; Birkirkara / Malta

Enhancing radiographers' knowledge for computed tomography justification (25 min)

Martine Ann Harris; Wakefield / United Kingdom

Panel discussion: Is further training required to optimise justification roles? (15 min)



# E<sup>3</sup> 2019 - Coronary artery disease: a multidisciplinary approach

Categories: Cardiac, Imaging Methods, Interventional Radiology, Multidisciplinary, Vascular

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Marc Dewey; Berlin / Germany

Chairperson's introduction (5 min)

Marc Dewey; Berlin / Germany

CT for imaging of coronary artery disease: three cases (15 min)

Elke Zimmermann; Berlin / Germany Federico Biavati; Berlin / Germany

Interventional approaches to coronary artery disease in relation to the three cases presented (15 min)

Ulf Landmesser; Berlin / Germany

Surgical approaches to coronary artery disease in relation to the three cases presented (15 min)

Torsten Doenst; Jena / Germany

Multidisciplinary heart team: case-based panel discussion (40 min)

Marc Dewey; Berlin / Germany



# E<sup>3</sup> 2022 - Anterior skull base tumours: a multidisciplinary approach

Categories: Head and Neck, Imaging Methods, Multidisciplinary, Musculoskeletal, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Berit Verbist; Leiden / Netherlands

**Chairperson's introduction** (5 min)

Berit Verbist; Leiden / Netherlands

Imaging strategy in the evaluation of anterior skull base tumours (15 min)

Roberto Maroldi; Concesio / Italy

Benefits, limitations, and contraindications for endoscopic resection of anterior skull base tumours (15 min)

Piero Nicolai; Brescia / Italy

Benefits and limitations of proton therapy in the treatment of skull base tumours (15 min)

Vincent Gregoire; Lyon / France

Multidisciplinary tumour board: case-based panel discussion (40 min)

Berit Verbist; Leiden / Netherlands



# E<sup>3</sup> 2031 - Subsolid lung nodules: the integrated approach

Categories: Chest, Interventional Oncologic Radiology, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Mathias Prokop; Nijmegen / Netherlands

**Chairperson's introduction** (5 min) Mathias Prokop; Nijmegen / Netherlands

Morphological approach to subsolid lung nodules: correlation with pathology (10 min)

Mathias Prokop; Nijmegen / Netherlands

When to intervene (15 min)

Mario Silva; Parma / Italy

How to manage subsolid nodules: the surgeon's perspective (15 min)

Dominique Gossot; Paris / France

Multidisciplinary tumour board: case-based panel discussion (45 min)

Mathias Prokop; Nijmegen / Netherlands



# E<sup>3</sup> 2032 - Uterine malignancies

Categories: Artificial Intelligence & Machine Learning, Genitourinary, Hybrid Imaging, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Benedetta Gui; Roma / Italy

Chairperson's introduction (5 min)

Benedetta Gui; Roma / Italy

The role of CT, PET/CT, and MRI in endometrial cancer (20 min)

Teresa Margarida Cunha; Lisboa / Portugal

The role of CT, PET/CT, and MRI in cervical cancer (20 min)

Milagros Otero Garcia; Vigo / Spain

The current and future role of standardised reporting and artificial intelligence (AI) in imaging uterine malignancies (15

min)

Olivio Fabrizio Donati; Zürich / Switzerland

Multidisciplinary tumour board: case-based panel discussion (30 min)

Camilla Panico; Rome / Italy



# OF 20a - Social media for beginners: tips and tricks for all generations!

Categories: Education, General Radiology, Research

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

**Moderator:** 

Marion Smits; Rotterdam / Netherlands

**Chairperson's introduction** (5 min) Marion Smits; Rotterdam / Netherlands

What is social media? (5 min)

Daniel Pinto dos Santos; Frankfurt / Germany

Where do I start? (5 min)

Federica Vernuccio; Padova / Italy

Why should I use social media? (5 min)

Bettina Baeßler; Mannheim / Germany

Open forum discussion: Ask all the questions you never dared to ask! (40 min)



# OF 20b - How will ultrasound fit within a radiology department in 20 years?

Categories: Education, Management/Leadership, Professional Issues, Ultrasound

ETC Level: LEVEL III

Date: July 16, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

#### **Moderators:**

Paul S. Sidhu; London / United Kingdom Boris Brkljačić; Zagreb / Croatia

#### Chairpersons' introduction (5 min)

Paul S. Sidhu; London / United Kingdom

Boris Brkljačić; Zagreb / Croatia

Thoughts from the German model: primary care-based ultrasound, hospital based US hubs run for radiologists and non-radiologists? (10 min)

Thomas Fischer; Berlin / Germany

Doctors using ultrasound only as an imaging technique: is this the route for radiologists? (10 min)

Vladimir Mitkov; Moscow / Russia

UK model of sonographers-based studies with few examinations performed by the radiologist: how to teach and maintain interest for radiology and will other specialities take over? (10 min)

Paul S. Sidhu; London / United Kingdom

Open forum discussion (25 min)



# OF 20R - MR safety updates for radiographers

Categories: Contrast Media, EuroSafe Imaging/Radiation Protection, Imaging Methods, Professional Issues, Radiographers

Date: July 16, 2022 | 14:00 - 15:00 CEST

**Moderator:** 

Jonathan McNulty; Dublin / Ireland

What is new in MR safety? (15 min)

Titti Owman; Lund / Sweden

Gadolinium-based contrast agents: where are we now? (15 min)

Moreno Zanardo; Milan / Italy

The MR safety officer (MRSO): role descriptors (15 min)

Christina Malamateniou; London / United Kingdom

Open forum discussion (15 min)



# PC 20 - EU policy on cancer screening

Categories: Artificial Intelligence & Machine Learning, Breast, Chest, Oncologic Imaging, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

#### **Moderators:**

Michael Fuchsjäger; Graz / Austria

Christian J. Johannes Herold; Vienna / Austria

#### Chairpersons' introduction (2 min)

Michael Fuchsjäger; Graz / Austria

Christian J. Johannes Herold; Vienna / Austria

#### The EU perspective (15 min)

Gualtiero Walter Ricciardi; Rome / Italy

#### Breast screening in the EU (15 min)

Ruud M Pijnappel; Utrecht / Netherlands

#### Lung screening in the EU (15 min)

Marie-Pierre Revel; Paris / France

Panel discussion: What can the ESR and radiology do to speed up and harmonise the uptake of breast and lung cancer screening across member states? (43 min)



# RC 2001 - Advanced colon cancer: the beginning or the end?

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

**Moderator:** 

Max Lahaye; Amsterdam / Netherlands

**Chairperson's introduction** (5 min) Max Lahaye; Amsterdam / Netherlands

What does a clinician want to know in advanced colorectal cancer? A colorectal surgeon's view (15 min)

François Quenet; Montpellier / France

Strengths and limitations of CT in advanced colorectal cancer (15 min)

Andrea Laghi; Roma / Italy

Strengths and limitations of MRI in advanced colorectal cancer (15 min)

Vincent Vandecaveye; Eliksem / Belgium

Panel discussion: Case-based (10 min)



# RC 2010 - My top three tips for musculoskeletal ultrasound imaging

Categories: Imaging Methods, Interventional Radiology, Musculoskeletal, Ultrasound

**ETC Level:** ALL LEVELS

Date: July 16, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

**Moderator:** 

Miraude Adriaensen; Heerlen / Netherlands

**Chairperson's introduction** (5 min)

Miraude Adriaensen; Heerlen / Netherlands

My top three tips for ultrasound of the shoulder (8 min)

Andrew J Grainger; Cambridge / United Kingdom

My top three tips for ultrasound of the elbow and forearm (8 min)

Hussain IS-HAQ Al Bulushi; Muscat / Oman

My top three tips for ultrasound of the fingers and thumb (8 min)

Catherine McCarthy; Oxford / United Kingdom

My top three tips for ultrasound of the groin and hip (8 min)

Jon Jacobson; Cincinnati, OH / United States

My top three tips for ultrasound of the knee (8 min)

Athena Plagou; Athens / Greece

My top three tips for ultrasound of the midfoot and toes (8 min)

Carlo Martinoli; Rapallo / Italy

Panel discussion: The current role of ultrasound of joint imaging compared to other imaging methods (7 min)





# SA 20 - Acute stroke in the emergency department

Categories: Emergency Imaging, Imaging Methods, Multidisciplinary, Neuro

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Grant Mair; Edinburgh / United Kingdom

**Chairperson's introduction** (5 min)

mario muto; Italy

**Acute stroke: CT first?** (20 min) Grant Mair; Edinburgh / United Kingdom

**Acute stroke: MRI first?** (20 min) Catherine Oppenheim; Paris / France

Strategies to reduce door-to-needle time: the clinician's point of view (20 min)

Nicolae Sanda; Geneva / Switzerland

Panel discussion: What radiologists need to know about the clinician's expectations from radiology in acute stroke? (25 min)



# RPS 2004 - Nodules, airway and extra pulmonary findings

Categories: Artificial Intelligence & Machine Learning, Chest, Imaging Methods

Date: July 16, 2022 | 14:00 - 15:00 CEST

**CME Credits:** 1

**Moderator:** 

Alexander Poellinger; Bern / Switzerland

Risk factors for presence of pulmonary nodules in a Dutch general population: a cross-sectional study (8 min) Jiali Cai; Groningen / Netherlands

**Standardising criteria and follow-up for frequent actionable incidental fundings in lung cancer screening** (8 min) Heidi C. Schmidt; Toronto / Canada

**Opportunistic osteoporosis screening using chest CT with artificial intelligence** (8 min) Jinrong Yang; Wuhan / China

**Effect of nodule location on diagnostic performance of deep learning-based nodule detection system** (8 min) Seulgi You; Suwon / Korea, Republic of

The potential reduction in nodule follow up using volumetric analysis (8 min) Chris S Johns; Sheffield / United Kingdom

**Automated liver attenuation measurement in COVID-19 patients: a link between lung and liver** (8 min) Victor Gombolevskiy; Moscow / Russia

MDCT Vs MRI in bronchiectasis: a non-inferiority trial (8  $\min$ )

Kumar Sharma Lokesh; New Delhi / India



# SF 20 - After the hype: the practical aspects of artificial intelligence

Categories: Artificial Intelligence & Machine Learning, General Radiology, Imaging Informatics, Imaging Methods, Multidisciplinary

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Laure S. Fournier; Paris / France

Chairperson's introduction (5 min)

Laure S. Fournier; Paris / France

Open-source tools for the non-expert radiologist (18 min)

Guillaume Chassagnon; Paris / France

Data preparation for artificial intelligence: a step-by-step approach (18 min)

Martin J. Willemink; San Diego / United States

Developing methodology for quality assurance in machine learning (18 min)

Lena Maier-Hein; Heidelberg / Germany

What do the neighbours do and how can we collaborate: machine learning in pathology (18 min)

P.J. van Diest; Utrecht / Netherlands

Panel discussion: From hype to practical: what's next for artificial intelligence? (13 min)



# OF 20Y - Cases of the day quiz for radiology residents

Categories: Education, General Radiology, Imaging Methods

ETC Level: LEVEL I

Date: July 16, 2022 | 14:00 - 15:00 CEST

CME Credits: 1

#### **Moderators:**

Michail Klontzas; Heraklion / Greece Saif Afat; Tübingen / Germany

Quiz Masters (60 min)

Michail Klontzas; Heraklion / Greece Saif Afat; Tübingen / Germany



#### **RPS 2001 - New techniques in ultrasound**

Categories: Abdominal Viscera, Contrast Media, Imaging Methods, Research, Ultrasound

Date: July 16, 2022 | 14:00 - 15:30 CEST

CME Credits: 1.5

**Moderator:** 

Dirk-André Clevert; Munich / Germany

The preliminary application of simultaneous display of CEUS and MFI technology in intratumour vascular detection and hepatic tumour diagnosis (8 min)

Hong Han; Shanghai / China

Performance of attenuation imaging and two-dimensional shear-wave elastography new technologies in the noninvasive assessment of liver disease (8 min)

Gloria Ruiz-Fernández; Madrid / Spain

Correlation of liver stiffness measured by shear wave elastography and radiologically assessed muscle mass and sarcopenia in patients with chronic liver disease (8 min)

M Sarthak Swarup; NEW DELHI / India

Contrast-enhanced ultrasound (CEUS) and contrast-enhanced computed tomography (CECT) for differentiating between mass-forming pancreatitis and pancreatic ductal adenocarcinoma: a meta-analysis (8 min)

Jie Yang; Chengdu / China

Integrating simulation-based learning into ultrasound training: the perspectives of radiology trainees and lessons for educators (8 min)

James Declan Yeomans; Cardiff / United Kingdom

A comparative study of ultrasound attenuation imaging, controlled attenuation parameters and magnetic resonance spectroscopy for the detection of hepatic steatosis (8 min)

Jing Wen Bao; Shanghai / China

Valsalva manoeuvre decreases liver and spleen stiffness measured by time-harmonic ultrasound elastography (8 min) Alma Martl; Augsburg / Germany

The feasibility and reproducibility of pancreas stiffness measurements using point shear wave elastography (8 min) Azzah Abdulrahman Althobaiti; Jeddah / Saudi Arabia

RLQ pain and tenderness in paediatric patients with PIMS: is it appendicitis? Ask the sonographer (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

Anat Ilivitzki; Haifa / Israel

 $\textbf{Imaging features of hepatic epithelioid hemangioendothelioma on contrast enhanced ultrasound} \ (8 \ \text{min})$ 

Yadan Xu; Shanghai / China





#### RT 20 - Building bridges: radiology and radiation therapy, a match made in heaven?

Categories: Management/Leadership, Multidisciplinary, Oncologic Imaging, Professional Issues, Radiographers

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 14:00 - 15:00 CEST

#### **Moderators:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands Lorenzo E. Derchi; Genoa / Italy

Chairpersons' introduction (2 min)

Regina G. H. Beets-Tan; Amsterdam / Netherlands

Lorenzo E. Derchi; Genoa / Italy

The use of imaging to guide radiation therapy: an interview with the expert (10 min)

**Discussion** (48 min)

Vincenzo Valentini; Rome / Italy Bernd Ohnesorge; Erlangen / Germany

Carlo Catalano; Roma / Italy

Peter Luijten; Utrecht / Netherlands



### IF 20 - How to prepare patients for their medical examination in order to optimise the workflow of the radiologist

Categories: General Radiology, Management/Leadership, Radiographers

Date: July 16, 2022 | 14:30 - 15:30 CEST

CME Credits: 1

#### **Moderators:**

Andrea Grace Rockall; Godalming / United Kingdom Adrian Brady; Cork / Ireland

#### Humanising radiology via social media campaigns (15 min)

Pilar Manchón GABÁS; Barcelona / Spain

#### Benefitting from new imaging implementations (15 min)

Andrea Grace Rockall; Godalming / United Kingdom

All you need to know about your imaging test: how to make life easier for radiologists and patients (15 min) Caroline Justich; Vienna / Austria

Panel discussion: How can alternative approaches be used to improve the patient experience before and during imaging examinations? (15 min)



#### **CUBE 21 - Neuro emergencies**

**Categories:** Interventional Radiology **Date:** July 16, 2022 | 15:30 - 16:00 CEST

CME Credits: 0.5

Neuro emergencies (30 min)

Lotfi Hacein-Bey; Carmichael / United States



#### RPS 2110 - Advances in imaging of bone lesions and muscles

Categories: Imaging Methods, Musculoskeletal, Oncologic Imaging

Date: July 16, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

#### **Moderator:**

Violeta Vasilevska Nikodinovska; Skopje / Macedonia

Safety of MR-guided high-intensity focused ultrasound (MRgHIFU) in the treatment of osteoid osteoma (8 min)

Valerio D'Agostino; Parete / Italy

Radiofrequency ablation for osteoid osteoma of the hand (8 min)

Francisco Javier Pérez García; Granada / Spain

Analysis of results after radiofrequency ablation of osteoid osteomas (8 min)

Miguel Martínez-Cachero García; Oviedo / Spain

Bizarre parosteal osteochondromatous proliferation: a rare mimic of malignancy (8 min)

Manoj Rajesh Ambhure; Mumbai / India

Bone lesion Al classifier (8 min)

Bar Rinott; Haifa / Israel

Feasibility of MRI in diagnosis and characterisation of intra-articular synovial masses and mass-like lesions (8 min)

Tamer Hassan; Zagazig / Egypt

Soft-tissue tumor reporting and data system (ST-RADS): MRI reporting guidelines with multi-institutional validation study of extremity soft-tissue tumours (8 min)

Avneesh Chhabra; Flowermound / United States

Sarcopenia in central European patients with multiple myeloma (8 min)

Jakob Neubauer; Freiburg / Germany

COVID-19 related acute sarcopenia in pectoral and intrinsic paraspinal muscles (8 min)

Betül Akdal Dölek; Ankara / Turkey

Femoral 2D-DXA and 3D-DXA analysis: PHPT effects on cortical and trabecular bone mineral density (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

Nicola Palladino; San Giovanni Rotondo / Italy

Muscle injuries and recovery: correlation MRI injury severity and return to play (RTP): a prospective study (8 min) Sabine Michalik; Frankfurt am Main / Germany



#### RPS 2102 - New developments in breast cancer diagnostics and interventions

Categories: Breast, Interventional Radiology, Oncologic Imaging

Date: July 16, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

**Moderator:** 

Gordana Ivanac; Zagreb / Croatia

**BraCoil - a wearable breast coil for 3 T MR mammography** (8 min)

Lena Nohava; Vienna / Austria

Efficacy and safety of gadopiclenol for body magnetic-resonance imaging (MRI): the PROMISE trial (8 min)

Christiane K. Kuhl; Aachen / Germany

Efficacy of ultrasound-guided cryoablation in the treatment of low-risk breast cancer (8 min)

Susana Fernández Fernández; Madrid / Spain

Role of ultrasound-guided vacuum-assisted breast biopsy (US-VABB) in the management of rad-path discordance (8

min)

Gabriele Levrini; Rozzano / Italy

Marking of metastatic axillary node and BIRADS 6 lesion with an iodine-125-radiolabelled seed in breast cancer patients who received neoadjuvant chemotherapy (8 min)

Francisco Javier Pérez García; Granada / Spain

Reduction of breast scar marker-induced metal artefacts in CT simulation: a preliminary study (8 min)

Hajir Sulaiman; Muscat / Oman



#### RPS 2105 - Artificial intelligence in breast imaging

Categories: Artificial Intelligence & Machine Learning, Breast

Date: July 16, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Jakob Neubauer; Freiburg / Germany

Safe and effective integration of AI as supporting reader in double reading breast cancer screening (8 min)

Jonathan Nash; Rowlands Castle / United Kingdom

Detection and classification of lesions in breast ultrasound using a deep convolutional neural network (8 min)

Carlotta Ruppert; Zurich / Switzerland

Development and validation of an Al-driven mammographic breast density classification tool based on radiologist consensus (8 min)

Marco Alì; Milan / Italy

Combining radiomics and deep learning for classification of suspicious lesions on contrast-enhanced mammography

images (8 min)

Manon Beuque; Maastricht / Netherlands

On the importance of including unconfirmed cases when assessing the effect of AI on the recall rate in breast cancer

screening (8 min)

Ben Glocker; London / United Kingdom

Automatic and standardised quality control of digital mammography and tomosynthesis with deep convolutional

neural networks (8 min)

Karol Borkowski; Zürich / Switzerland

Virtual abbreviated contrast enhanced MRI for breast cancer diagnostics - initial experience (8 min)

Andrzej Liebert; Erlangen / Germany

Post-market real-world data demonstrating use of an AI system as an extra reader to augment breast cancer detection

without unnecessary recalls (8 min)

Jonathan Nash; Rowlands Castle / United Kingdom

Decoding the molecular subtypes of breast cancer seen on multimodal ultrasound images using an assembled

convolutional neural network model: a prospective and multicentre study (8 min)



Huixiong Xu; Shanghai / China

Can a breast-screening AI solution reduce the incidence of interval cancers? (8 min)

Samantha Jean Colosimo; ABERDEEN / United Kingdom

Machine-learning radiomics for breast-mass malignancy prediction in contrast-enhanced breast CT (8 min)

Marco Caballo; Nijmegen / Netherlands



#### S 21 - Best of ESR Student Abstract Submission 2

Categories: Breast, Cardiac, Chest, Education, Imaging Methods, Research, Students, Ultrasound

Date: July 16, 2022 | 16:00 - 17:30 CEST

**CME Credits:** 1.5

#### **Moderator:**

Malgorzata Szczerbo-Trojanowska; Lublin / Poland

Extracurricular hands-on POCUS workshops - a foundation for improved clinical skills in future medical doctors (6 min) Jure Bosanac; Ljubljana / Slovenia

Healthcare costs associated with suboptimal preoperative breast MRI use in breast cancer patients: a retrospective cost-of-illness study (6 min)

Amber Catheryn Simmons; Middletown / United States

Assessing the impact of 3D segmentation workshops on medical education and image interpretation: A prospective pilot study (6 min)

Cyrus Chan; Newcastle upon Tyne / United Kingdom

Audit of the consent process in interventional radiology and patient perspectives (6 min)

Iman Ferman Sulevani; Leeds / United Kingdom

Does the performance of Deep Learning-based cardiac segmentation on cardiac MR differ with regard to cardiac pathology? (6 min)

Merve Nida Gökbak; Istanbul / Turkey

"RadioComics" - Use Of Creativity To Teach Radiology (6 min)

Gabriela Fagundes Saffe; Salvador / Brazil

Evaluable self-learning of ultrasound by simulation in students at the beginning of the studies of Degree in Medicine with integrated curriculum. (6 min)

Pedro Urbiola Sáez; Tudela / Spain

More than meets the eye: anemia CT signs (6 min)

Miglius Mikalauskas; Kaunas / Lithuania

An investigation of Irish radiographers' attitudes and opinions on taking on the role of referrers. (6 min)

Keisha Davies; Dublin / Ireland



# BUILDING BRIDGES JULY 13-17 | VIENNA

The importance of distance learning (EAD) in the pandemic. (6 min)

Rogerio Jadjiski de Leao; Sao Paulo / Brazil



#### RPS 2114 - Optimising MRI practice and imaging services

Categories: Imaging Methods, Neuro, Physics in Medical Imaging, Professional Issues, Radiographers

Date: July 16, 2022 | 16:00 - 17:00 CEST

**CME Credits:** 1

#### **Moderators:**

Moreno Zanardo; Milan / Italy

Stephen Harden; Southampton / United Kingdom

#### Comparison between the use of PET and MRI 3.0 T in meningiomas (8 min)

Maria Elena Piazzolla; Pavia / Italy

#### Comparison between the use of PET-CT and high-field MRI 3.0T in adenoid cystic carcinoma (8 min)

Margherita Sofia Cadeo; Pavia / Italy

#### Challenges in prostate MR image quality: perspectives from Saudi and Irish MRI departments (8 min)

Shrooq Al Dahery; Jeddah / Saudi Arabia

#### Assessing the image quality of brain MR images taken with 1.5T and 3T scanners (8 min)

Leanne Borg; Mtarfa / Malta

#### Results of a survey on MRI reporting radiographers in the UK (8 min)

Helen Estall; Leicester / United Kingdom

Radiomcis of Zoomit DWI in predicting clinical significant prostate cancer: a towards step of a non-invasive auxiliary tool (8 min)

Jie Bao; Suzhou / China



#### RPS 2103 - Coronary artery CT and myocardial perfusion

Categories: Artificial Intelligence & Machine Learning, Cardiac, Physics in Medical Imaging, Professional Issues

Date: July 16, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Maja Hrabak Paar; Zagreb / Croatia

National trends in coronary computed tomography angiography usage: associations with invasive coronary angiography usage and healthcare costs (8 min)

Jonathan R. Weir-Mccall; Cambridge / United Kingdom

The impact and challenges of implementing CTCA according to the 2019 ESC guidelines on chronic coronary syndromes: a survey and projection of CTCA services in the Netherlands (8 min)

Thomas Pieter Willem van den Boogert; Amsterdam / Netherlands

Feasibility and diagnostic performance of a new CCTA-derived and Al-based fully automated system for detection of coronary artery disease (8 min)

Verena Brandt: Charleston / United States

Image quality from super resolution deep learning reconstruction on coronary CT angiography (8 min)

John Schuzer; Wheaton / United States

Machine learning for time-to-event analysis in patients with suspected coronary artery disease: increased long-term prognostic value of coronary CT angiography-derived measures and clinical parameters (8 min)

Maximilian Josef Bauer; Munich / Germany

Comparison of clinical scores in predicting coronary artery disease in familial hypercholesterolaemia: a CCTA study (8 min)

Lorenzo Dominici; Roma / Italy

Frequency and clinical implications of coronary anomalies and myocardial bridging on CT coronary angiography (8 min)

Giles Hannibal Roditi; Glasgow / United Kingdom

Silent myocardial infarction fatty scars detected by coronary calcium score CT scan in diabetic patients without history of coronary heart disease (8 min)

Sara Boccalini; Bron / France

The potential of deep learning image reconstruction (DLIR) for low dose myocardial CT perfusion protocols on a new 256 detector CT scanner: a phantom study (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

Ying Guo; Guangzhou / China

**Dynamic myocardial perfusion imaging using quantitative iodine density maps in a 3D printed heart phantom** (8 min) Johannes Leopold Hammel; Munich / Germany



#### RPS 2107 - Uterine masses: benign or invasive - is it always that easy?

Categories: Artificial Intelligence & Machine Learning, Genitourinary, Molecular Imaging, Oncologic Imaging, Ultrasound

Date: July 16, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

#### **Moderator:**

Marijana Basta Nikolic; Novi Sad / Serbia

Using amide proton transfer-weighted MRI to non-invasively differentiate mismatch repair deficient and proficient tumours in endometrioid endometrial adenocarcinoma (8 min)

Xinyu Liu; Beijing / China

Magnetic resonance imaging evaluation of adenomyosis rat model constructed by autologous endometrial implantation (8 min)

Qi Zhang; Shanghai / China

Preoperative tumour texture analysis on MRI predicts high-risk disease in endometrial cancer (8 min)

Michela Lupinelli; Forli / Italy

MRI staging of endometrial cancer: is there any room for improvement? (8 min)

Teresa Neves; Lisbon / Portugal

Volumetric apparent diffusion coefficient (ADC) histogram analysis of preoperative differentiation between benign endometrial lesions and stage IA endometrial cancer (8 min)

Jieying Zhang; Beijing / China

Early regression index (ERI) as response predictor to neoadjuvant chemoradiotherapy in locally advanced cervical cancer (8 min)

Salvatore Persiani; Policoro / Italy

Value of MRI in parametrial invasion assessment and association with prognosis in locally advanced cervical cancer: preliminary results (8 min)

Michela Lupinelli; Forli / Italy

Validation of a qualitative magnetic resonance imaging-based method to predict placenta accreta spectrum disorders in patients with placenta previa (8 min)

Francesco Verde; Naples / Italy

Abnormal cord coiling: a harbinger of adverse pregnancy outcome? (8 min)



## BUILDING BRIDGES JULY 13-17 | VIENNA

Ayush Khandelwal; Jaipur / India

Investigation of correlation between number of echolucent zones with/without colour flow and morbidly adherent placenta (8 min)

Behzad Aminzadeh; Mashhad / Iran

Comparing diagnostic accuracy and diagnostic confidence in the MRI interpretation of placenta accreta spectrum disorders before and after implementation of SAR/ESUR consensus framework (8 min)

Aman Khurana; Lexington / United States





#### **RPS 2116 - Gastrointestinal tumours**

Categories: Artificial Intelligence & Machine Learning, GI Tract, Hybrid Imaging, Imaging Methods, Oncologic Imaging

Date: July 16, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

#### **Moderator:**

Sofia Gourtsoyianni; Athens / Greece

Multicentre CT-based radiomics for predicting the response to neoadjuvant chemotherapy in locally advanced gastric cancer patients (8 min)

Ruirui Song; Taiyuan / China

Clinical impact of MRI compared to 68Ga-DOTATATE PET-CT in monitoring metastasised neuroendocrine tumours (NETs): can MRI replace 68Ga-DOTATATE PET-CT? (8 min)

Charlotte Rijsemus; Amsterdam / Netherlands

Contrast-enhanced computed tomography texture analysis in colon cancer: correlation with genetic markers (8 min) Giulio Cabrelle; Padua / Italy

Whether quantitative spectral parameters can predict lymph node metastasis in colorectal cancer: a preliminary study (8 min)

Wenjing Peng; Beijing / China

Differentiation between malignant and benign colorectal tumours by texture analysis of iodine-based material decomposition images with dual-energy computed tomography imaging (8 min)

Wenjun Hu; Dalian / China

A new standard for monitoring treatment response after neoadjuvant chemotherapy in colorectal cancer patients with peritoneal metastases: 'the estimated volume index' (EVI) (8 min)

Charlotte Rijsemus; Amsterdam / Netherlands

The definition of a near-complete response after neoadjuvant (chemo)radiotherapy for rectal cancer: results of an expert survey (8 min)

Petra A Custers; Amsterdam / Netherlands

Prognostic models for classifying rectal tumour response to therapy using radiomics and CNN features (8 min)

Gisella Guido; Roma / Italy

Added value of multiparametric PET/MRI in staging of rectal cancer (8 min)



## BUILDING BRIDGES JULY 13-17 | VIENNA

Alexander Johannes Herold; Vienna / Austria

Diffusion weighted MRI (DWI) and carbon ion radiotherapy (CIRT): a preliminary study on DWI predictive role in CIRT re-treatment of locally recurrent rectal cancer (8 min)

Dario Nicola Boccuzzi; Como / Italy

Role of MRI for early tumour response evaluation in anal cancer after five weeks of chemoradiotherapy in guiding boost strategies (8  $\min$ )

Doenja Marina Johanna Lambregts; Amsterdam / Netherlands





#### SF 21b - Artificial intelligence: where are we now?

Categories: Artificial Intelligence & Machine Learning, Education, Evidence-Based Imaging, Professional Issues, Radiographers

Date: July 16, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

#### **Moderators:**

Jonathan McNulty; Dublin / Ireland Sergey Morozov; Liège / Belgium

#### Chairpersons' introduction (5 min)

Jonathan McNulty; Dublin / Ireland Sergey Morozov; Liège / Belgium

#### Guiding our practice: clinical decision support and examination supports (20 min)

Karen Knapp; Exeter / United Kingdom

#### Helping to improve patient outcomes (20 min)

Brendan S Kelly; Dublin / Ireland

#### Educating in an artificial intelligence world (20 min)

Christina Malamateniou; London / United Kingdom

Panel discussion: Is artificial intelligence improving our professional practice? (25 min)



#### TC 21 - New techniques in breast imaging

Categories: Breast, Imaging Methods, Ultrasound

ETC Level: LEVEL II

Date: July 16, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

#### **Moderators:**

Linda Moy; New York / United States Michael Fuchsjäger; Graz / Austria

#### A. 3D automated breast ultrasound (ABUS) (20 min)

Athina Vourtsis; Athens / Greece

#### **B. Abbreviated breast MRI** (20 min)

Elizabeth Morris; Sacramento / United States

#### C. Interactive case discussion (20 min)

Athina Vourtsis; Athens / Greece

Elizabeth Morris; Sacramento / United States



ESR QuADRANT - Quality improvement through audit in diagnostic radiology, radiotherapy, and nuclear medicine: a European project on behalf of the European Commission: a progress update

Categories: Audit, EuroSafe Imaging/Radiation Protection

**ETC Level:** ALL LEVELS

Date: July 16, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Adrian Brady; Cork / Ireland

Chairperson's introduction (5 min)

Adrian Brady; Cork / Ireland

QuADRANT: the main European survey, literature review, and expert interviews (15 min)

David Howlett; Eastbourne / United Kingdom

**QuADRANT: findings and output from the final workshop** (20 min)

Francesco Giammarile; Vienna / Italy

The European Commission perspective (15 min)

Georgi Simeonov; Luxembourg / Luxembourg

QuADRANT: the radiological perspective (20 min)

Adrian Brady; Cork / Ireland

Panel discussion: A roadmap for enhanced clinical audit integration into European radiological practice: are we any closer? (15 min)



#### SF 21a - Functional renal imaging for the clinical practice

Categories: Abdominal Viscera, Genitourinary, Imaging Methods, Multidisciplinary, Translational Imaging

ETC Level: LEVEL III

Date: July 16, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Harriet Thoeny; Bern / Switzerland

Chairperson's introduction (5 min)

Harriet Thoeny; Bern / Switzerland

Added value of diffusion-weighted MRI (20 min)

Harriet Thoeny; Bern / Switzerland

Added value of BOLD MRI (20 min)

Menno Pruijm; Lausanne / Switzerland

Added value of ASL MRI (20 min)

Per Eckerbom; Uppsala / Sweden

Panel discussion: What is the clinical impact of functional imaging of the kidney? (25 min)



#### RC 2115 - Pros and Cons: Femoral Doppler ultrasound should still be a standard radiological exam

Categories: Abdominal Viscera, Imaging Methods, Oncologic Imaging, Ultrasound, Vascular

ETC Level: LEVEL I+II

Date: July 16, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

**Moderator:** 

Boris Brkljačić; Zagreb / Croatia

**Chairperson's introduction** (5 min) Lars B Lonn; Copenhagen Ø / Denmark

**PRO** (15 min)

Pierleone Lucatelli; Roma / Italy

**CON** (15 min)

David Laszlo Tarnoki; Budapest / Hungary

Panel discussion: How should ultrasound be incorporated in the radiological work-up? (25 min)



#### RC 2111 - Neuroimaging: normal or abnormal?

Categories: Artificial Intelligence & Machine Learning, Head and Neck, Imaging Informatics, Neuro, Vascular

ETC Level: LEVEL II

Date: July 16, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

**Moderator:** 

Sven Haller; Geneve / Switzerland

Chairperson's introduction (5 min)

Sven Haller; Geneve / Switzerland

Common mistakes in neuroimaging (15 min)

Johan Van Goethem; Antwerpen / Belgium

Normal ageing and imaging of the elderly versus neurodegenerative disorders (15 min)

Meike W. Vernooij; Rotterdam / Netherlands

Vessel wall imaging (15 min)

Rolf Jäger; London / United Kingdom

Panel discussion: Use of artificial intelligence to discriminate normal from abnormal exams (10 min)



#### RC 2101 - Pros and Cons: MRI/PET is ready for clinical practice

Categories: Abdominal Viscera, Hybrid Imaging, Molecular Imaging, Nuclear Medicine, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

**Moderator:** 

Katrine Riklund; Umeå / Sweden

Chairperson's introduction (5 min)

Katrine Riklund; Umeå / Sweden

**PRO** (15 min)

Lennart K. Blomqvist; Stockholm / Sweden

**CON** (15 min)

Barbara M. Malene Fischer; London / United Kingdom

Panel discussion: Can MRI/PET outperform PET/CT? How to build strong interactions with nuclear medicine colleagues? (25 min)



#### OF 21a - How to get my manuscript accepted: getting help from reporting guidelines

Categories: Evidence-Based Imaging, Research

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

**Moderator:** 

Yves Menu; Paris / France

Chairperson's introduction (3 min)

Yves Menu; Paris / France

Why are STARD and STROBE useful and how does it help authors and editors? (5 min)

Francesco Sardanelli; San Donato Milanese, Milan / Italy

What is PRISMA and what are the recipes for a relevant meta-analysis? (5 min)

Viktoria Wieske; Berlin / Germany

Can we elaborate guidelines or a check-list for radiomics studies? (5 min)

Daniel Pinto dos Santos; Frankfurt / Germany

Open forum discussion (42 min)



#### JIIQ - The voyage of the Beagle

Categories: Education, General Radiology

ETC Level: LEVEL I+II

Date: July 16, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

#### **Moderator:**

Ritse Maarten Mann; Nijmegen / Netherlands

#### Introduction (6 min)

Ritse Maarten Mann; Nijmegen / Netherlands

#### Team Marco Polo (28 min)

Nina Pötsch; Wien / Austria

Michail Klontzas; Heraklion / Greece

#### Team Vasco da Gama (28 min)

Gregor Laimer; Innsbruck / Austria Luis Gregorio Chávez Marroquin; Alzira / Spain

#### Team Colombo (28 min)

Michela Polici; Rome / Italy

Helena Dinis Paixão; Lisbon / Portugal



### IF 21 - Virtueller Besuch in der Radiologischen Abteilung: alles, was Sie schon immer über Radiologie wissen wollten

Categories: General Radiology, Professional Issues

Date: July 16, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

**Moderator:** 

Christian Loewe; Vienna / Austria

Einführung des Vorsitzenden (10 min)

Christian Loewe; Vienna / Austria

Innerhalb einer Radiologie Abteilung (30 min)

Live Q&A (15 min)

Michael Fuchsjäger; Graz / Austria Wolfgang Schima; Vienna / Austria Emina Talakic; Graz / Austria

Schlussworte (5 min)

Erik Briers; Brussels / Belgium Caroline Justich; Vienna / Austria



#### ESR/EIBALL - Imaging biomarkers: lessons learned by/from QIBA and EIBALL

Categories: Imaging Methods, Physics in Medical Imaging, Professional Issues, Research, Translational Imaging

ETC Level: LEVEL II

Date: July 16, 2022 | 16:00 - 17:00 CEST

CME Credits: 1

#### **Moderator:**

Aad Van Der Lugt; Rotterdam / Netherlands

QIBA's metrology for technical evaluation of biomarkers (15 min)

Gudrun Zahlmann; Oak Brook / United States

QIBA/EIBALL's experience with biomarker profile development (15 min)

Xavier Xavier Golay; London / United Kingdom

EIBALL's experience with clinical validation of imaging biomarkers (15 min)

Pascal A.T. Baltzer; Vienna / Austria

Panel discussion: Are we on the right track with imaging biomarker validation? (15 min)



#### E<sup>3</sup> 2131 - Neuroendocrine tumours of the lung: a multidisciplinary approach

Categories: Chest, Hybrid Imaging, Molecular Imaging, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Annemiek Snoeckx; Zandhoven / Belgium

**Chairperson's introduction** (5 min) Annemiek Snoeckx; Zandhoven / Belgium

How to manage small cell lung cancer: the oncologist's view (15 min)

Dragana Jovanovic; Belgrade / Serbia

Imaging the spectrum of pulmonary neuroendocrine tumours (15 min)

Annemiek Snoeckx; Zandhoven / Belgium

**DIPNECH: a diagnostic challenge** (15 min)

Guillaume Chassagnon; Paris / France

Multidisciplinary tumour board: case-based panel discussion (40 min)

Annemiek Snoeckx; Zandhoven / Belgium



#### E<sup>3</sup> 2119 - Anal cancer: a multidisciplinary approach

Categories: Abdominal Viscera, GI Tract, Hybrid Imaging, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

#### **Moderator:**

Marc Jeffrey Gollub; New York / United States

#### Chairperson's introduction (2 min)

Marc Jeffrey Gollub; New York / United States

#### How to manage anal cancer: the radiation oncologist's perspective (15 min)

Rob Glynne-Jones; London / United Kingdom

#### Which imaging should I use to stage anal cancer (15 min)

Jennifer S. Golia; Bridgeport / United States

#### PET/CT baseline and follow up of anal cancer (15 min)

Sarah Pötter-Lang; Vienna / Austria

#### Case-based panel discussion (43 min)

Marc Jeffrey Gollub; New York / United States Rob Glynne-Jones; London / United Kingdom Jennifer S. Golia; Bridgeport / United States Sarah Pötter-Lang; Vienna / Austria

Maria Antonietta Gambacorta; Rome / Italy



#### E<sup>3</sup> 2122 - Early laryngeal cancers: a multidisciplinary approach

Categories: Head and Neck, Imaging Methods, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 16, 2022 | 16:00 - 17:30 CEST

CME Credits: 1.5

**Moderator:** 

Frank A. Pameijer; Utrecht / Netherlands

**Chairperson's introduction** (5 min) Frank A. Pameijer; Utrecht / Netherlands

Imaging checklist for treatment planning in early laryngeal cancers (15 min)

Davide Farina; Brescia / Italy

Transoral microsurgery in early laryngeal cancers: benefits, limitations, and contraindications (15 min)

Cesare Piazza; Brescia / Italy

Pre-treatment evaluation of early laryngeal cancers: a radiation oncologist's perspective (15 min)

Vincent Gregoire; Lyon / France

Multidisciplinary tumour board: case-based panel discussion (40 min)

Frank A. Pameijer; Utrecht / Netherlands



#### - Highlights from the Mobile Film Crew Day 5

**Date:** July 17, 2022 | 02:15 - 02:30 CEST

**Moderator:** 

Ben Giese; Chicago / United States



#### RPS 2205 - Integration of artificial intelligence (AI) in radiological workflow and structured reporting

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Management/Leadership, Professional Issues

Date: July 17, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

**Moderator:** 

Daniel Pinto dos Santos; Frankfurt / Germany

Standardising workflow nomenclature in radiology (8 min)

Knud Nairz; Bern / Switzerland

Standardising the mpMRI prostate reporting for one-stop clinics: a novel dedicated semi-automated workflow (8 min)

Francesco Giganti; London / United Kingdom

Integrating artificial Intelligence algorithms with DICOM structured reporting into clinical workflows (8 min)

Khaled Salem Younis; Cleveland / United States

Pilot development of a natural language processing algorithm for classification of head CT reports (8 min)

Ethan Bocheng Wang; Houston / United States

Structured reporting of COVID-19 chest CT with natural language processing through a semi-supervised deep learning approach (8 min)

Salvatore Claudio Fanni; Pisa / Italy

Why standardisation of preinferencing image processing methods is crucial for deep learning algorithms: compelling evidence based on the variations in outputs for different inferencing workflows (8 min)

Vasantha Kumar Venugopal; New Delhi / India

Using machine learning based CAD-RADS from radiological reports and non-curated electronic medical records data for adverse cardiac events prediction (8 min)

Emanuele Muscogiuri; Roma / Italy



#### E<sup>3</sup> 2221 - Imaging of head and neck manifestations of systemic disease

Categories: Head and Neck, Imaging Methods, Oncologic Imaging

ETC Level: LEVEL II

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

Autoimmune disorders: IgG, Sjogren's syndrome and others (30 min)

Minerva Becker; Geneva / Switzerland

Lymphatic and haematopoietic neoplasms (30 min)

Frank A. Pameijer; Utrecht / Netherlands



#### RPS 2203 - Cardiac MRI of cardiomyopathy: part 2

Categories: Cardiac, Hybrid Imaging, Multidisciplinary

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Bettina Baeßler; Mannheim / Germany

Cardiovascular magnetic resonance native T1 mapping in Anderson-Fabry disease: a systematic review and metaanalysis (8 min)

Andrea Ponsiglione; Napoli / Italy

Comparison of classical Fabry patients and its p.D313Y and p.A143T variants by multiparametric CMR with native T1 mapping, LGE and four-chamber feature-tracking myocardial strain (8 min)

Maxim Avanesov; Hamburg / Germany

Personalising CMR-based risk stratification for outcomes in dilated cardiomyopathy with LVEF ≥35%: cohort study with a long-term follow-up (8 min)

Shuang Li; Beijing / China

Cardiac amyloidosis, elevated T2 native: oedema or something else? (8 min)

Niki Lama; Athens / Greece

Disease stage-dependent changes in left ventricular and right ventricular functions and in myocardial strain in patients with pulmonary sarcoidosis (8 min)

Arpine Kocharyan; Mannheim / Germany

Atrial involvement in Takotsubo syndrome: a CMR feature-tracking study (8 min)

Letizia Ruoli; Roma / Italy

Prognostic value of left atrial reservoir strain by cardiac magnetic resonance in left ventricular myocardial noncompaction (8 min)

Pei-lun Han; Chengdu / China





#### RPS 2201 - New frontiers in colorectal imaging

Categories: Abdominal Viscera, GI Tract, Imaging Methods, Oncologic Imaging, Research

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

#### **Moderator:**

Stephanie Nougaret; St Clement de Riviere / France

Polyp identification rate variation in symptomatic CT colonography: does professional background define performance level in a team? (8 min)

Craig Roe; Leeds / United Kingdom

Feasibility of carrying out ultra-low-dose CT colonography with an individualised kVp protocol (8 min)

Mingyue Zhao; Dalian / China

The role of diverticular disease and patient age in insufficient colon distension at CT colonography (8 min)

Andrey Meshcheryakov; Moscow / Russia

Neurovascular invasion and lymph node metastasis in resectable rectal cancer evaluated by intravoxel incoherent motion MR study (8 min)

Xiaoli Chen; Chengdu / China

Predictive value of MRI texture features for KRAS mutation in colorectal cancer patients (8 min)

Rui Na Fan; Chengdu / China

Retrospective observational study on emergency large bowel surgery and frailty indexes in the elderly: comparison between radiological and clinical markers (8 min)

Damiano Remor; Scorzè / Italy

Transanal Minimally Invasive Surgery (TAMIS): a pictorial review of postoperative MRI findings (8 min)

Conor Reid; Rathcoole / Ireland





# RPS 2202 - Contrast-enhanced mammography in clinical practice

Categories: Breast, Imaging Methods

Date: July 17, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

**Moderator:** 

Clarisse Dromain; Lausanne / Switzerland

Preliminary results of the RACER trial: diagnostic accuracy of CESM and conventional imaging as primary work-up tool after being recalled from breast cancer screening (8 min)

Lidewij Neeter; Maastricht / Netherlands

Diagnostic accuracy of contrast-enhanced spectral mammography in the prediction of malignancy of breast lesions presenting as microcalcifications (8 min)

Daniela Ballerini; Milano / Italy

Contrast-enhanced mammography and breast MRI in the assessment of response to neoadjuvant treatment (8 min) Joao Vicente Machado Horvat; 002 / Brazil

Comparison of the contrast enhancement of benign and malignant lesions on CESM (8 min)

Anam Ali; London / United Kingdom

Contrast enhanced digital mammography (CEDM) and BI-RADS 3 findings: what benefits can we get? (8 min)

Christofis Charalambous; Athens / Greece

Comparing the diagnostic performance of CEM and standard contrast-enhanced breast MRI: a systematic review and meta-analysis (8 min)

Lidewij Neeter; Maastricht / Netherlands

Diagnostic value of contrast-enhanced spectral mammography in the malignity prediction of breast lesions. (8 min)

Simone Palma; Rome / Italy



# RPS 2209 - Interventional radiology from head to toe

Categories: Interventional Radiology, Multidisciplinary, Neuro, Research, Vascular

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Edit Dósa; Budapest / Hungary

Histopathological and imaging characterisation of clot in acute ischaemic stroke and their correllation with angiographic and functional outcomes in patients undergoing mechanical thrombectomy (8 min)

Venkatesh Pothula; CHENNAI / India

 $\textbf{Complications and complaints in patients undergoing diagnostic cerebral digital subtraction angiography (8 \ min)}\\$ 

Maurits Voormolen; Edegem / Belgium

Safety and efficacy of rotational thrombectomy for treatment of infrarenal arterial occlusions in a large single-centre cohort (8 min)

Christoph Artzner; Tübingen / Germany

Balloon Pulmonary Angioplasty in patients with non-operable or residual chronic thromboembolic hypertension: initial 5-year experience in a national referral centre (8 min)

Alfredo Páez Carpio; Barcelona / Spain

Impact of collateral status on the patient's outcome after endovascular treatment of the anterior circulation acute ischaemic stroke: a singlecentre experience (8 min)

Magda Jablonska; Gdańsk / Poland

Arterial embolisation reduces synovial hyperaemia in haemophilia patients before total knee replacement (8 min)

Wouter Foppen; Utrecht / Netherlands



# RPS 2204 - Pulmonary and extra-pulmonary malignancies

Categories: Artificial Intelligence & Machine Learning, Chest, Imaging Methods

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

### **Moderator:**

Anna Rita Larici; Roma / Italy

Preoperative staging of advanced mediastinal tumours with cine-magnetic resonance imaging (cine-MRI): a comparison with contrast-enhanced computed tomography (CT) and histology (8 min)

Costanza Lisi; Milan / Italy

Pulmonary MALT lymphoma: detailed CT findings, including "galaxy sign" (8 min)

Yeongran Song; Seoul / Korea, Republic of

Can computed tomography radiomics analysis discriminate the mediastinal lymph nodes in patients with sarcoidosis and lymphoma (8 min)

Firat Atak; Ankara / Turkey

ARTIMES: artificial intelligence-based volumetric assessment of malignant pleural mesothelioma (8 min)

Kevin Groot Lipman; Amsterdam / Netherlands

Assessing the performance of CT Node-RADS in lung cancer with histopathological correlation (8 min)

Giulia Benedetti; London / United Kingdom

Can an artificial intelligence algorithm help identify malignant nodules on chest radiographs (8 min)

Chris S Johns; Sheffield / United Kingdom



### RPS 2211 - Imaging in head trauma, emergency room and of the cerebral veins

Categories: Emergency Imaging, Imaging Methods, Neuro

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Ursula Schwarz-Nemec; Vienna / Austria

A new method for CT venography assessment of transverse sinus stenosis based on venous transstenotic pressure gradient (8 min)

Heyu Ding; Beijing / China

Analysis of current practices in the investigation of suspected subarachnoid haemorrhage: is a negative CT head within 6 hours of onset enough to rule out SAH? (8 min)

Rohan Banerjee; Edinburgh / United Kingdom

Consistency of stroke and haemorrhage diagnosis on native brain CT scans in emergency medicine by clinicians using Al compared to radiologists (8 min)

Anna Nikolaevna Khoruzhaya; Moscow / Russia

Diagnostic accuracy of sagittal TSE-T2W, variable flip angle 3D TSE-T2W and high-resolution 3D heavily T2W sequences for the cerebral aqueduct and the superior medullary velum stenosis (8 min)

Ayşe Nur Şirin Özcan; ANKARA / Turkey

Quantitative study of movement and image quality on ER and inpatient MRI of the brain (8 min)

Dylan Abeysekera; Houston / United States

Computer tomography findings in head trauma patients at University Teaching Hospitals in Kigali, Rwanda (8 min)

Patrick Niyongabo; Kigali / Rwanda

The clinical factors most likely to result in an abnormal CT head - a UK trauma centre experience (8 min)

Abul Hague; Stoke-On-Trent / United Kingdom



# RPS 2210 - Advances in assessing joints and ligaments of the lower extremity

Categories: EuroSafe Imaging/Radiation Protection, Imaging Methods, Musculoskeletal

Date: July 17, 2022 | 08:00 - 09:00 CEST

**CME Credits:** 1

**Moderator:** 

Carlo Martinoli; Rapallo / Italy

Sonographic classification of Achilles tendon tears and its clinical significance (8 min)

Nehal Singla; London / United Kingdom

Can gadolinium contrast agents be replaced with saline for direct MR arthrography of the hip? A retrospective study with arthroscopic comparison (8 min)

Malin Kristin Meier; Bern / Switzerland

The feasibility and clinical value of 5T magnetic resonance in hip anatomy (8 min)

Shuo Zhu; Shanghai / China

Applications of a novel contrast agent in x-ray imaging of articular cartilage: a preliminary experience (8 min)

Daniele Conti; Bologna / Italy

(Dis)location of the anterior intermeniscal ligament: an exploratory MRI study (8 min)

Casper Dick Benjamin Visser; Amstelveen / Netherlands

Protruding anterior medial meniscus and posterior tibial translation as secondary signs of complete and partial posterior cruciate ligament tear on MRI (8 min)

Ji Young Choi; Seoul / Korea, Republic of

Novel experimental model to evaluate the effects of cement polymerization timing and bone density in trabecular bone penetration in total knee arthroplasty (8 min)

Monica Mattone; Rome / Italy



# BS 22 - Acknowledging and managing radiographer burnout

Categories: Management/Leadership, Professional Issues, Radiographers, Students

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Louise A. Rainford; Dublin / Ireland

The impact of burnout on student radiographers (12 min)

Louise A. Rainford; Dublin / Ireland

Academic faculty insights (12 min)

Mark F. F. McEntee; Cork / Ireland

The clinical radiographer perspective (12 min)

Patrizia Cornacchione; Rome / Italy

Compassionate leadership (12 min)

Amy (nee Taylor; Exeter / United Kingdom

Panel discussion: Lessons learnt from 2020 onwards and taking the positives forwards (12 min)



### RPS 2216 - Lymphnode assessment in oncological patients

Categories: Artificial Intelligence & Machine Learning, Imaging Methods, Oncologic Imaging, Ultrasound

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

### **Moderator:**

Jelle O. Barentsz; Nijmegen / Netherlands

Lymph node reporting and data system (LN-RADS) for ultrasound classification of lymph nodes (8 min)

Cezary Chudobinski; Łódź / Poland

Detection of metastatic lymph nodes by increased stiffness: a road to eRECIST? (8 min)

Stephan Rodrigo Marticorena Garcia; Berlin / Germany

Prospective evaluation of N- and M-staging in conventional imaging, MRI and 18F-FDG PET/MRI (8 min)

Janna Morawitz; Düsseldorf / Germany

A nomogram for preoperatively predicting sentinel lymph node status in breast cancer based on DCE-MRI radiomic features and clinical factors (8 min)

Chunhua Wang; Chengdu / China

Assessment of lymph node metastasis in thyroid carcinoma using standard deviation on virtual monoenergetic images in dual-layer spectral detector computed tomography (8 min)

Weiwei Deng; Shanghai / China

Machine learning and radiomics analysis of 18F-FDG PET/MR datasets for the prediction of therapy response of isolated limp perfusion in patients with soft-tissue sarcomas (8 min)

Johannes Grueneisen; Essen / Germany

Paediatric small round blue cell tumours from head to toe (8 min)

Larissa de Andrade Defendi; São Paulo / Brazil



# OF 22R - Medical radiation exposure in pregnancy

Categories: EuroSafe Imaging/Radiation Protection, General Radiology, Genitourinary, Professional Issues, Radiographers

ETC Level: LEVEL II

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Claudio Granata; Trieste / Italy

Chairperson's introduction (5 min)

Claudio Granata; Trieste / Italy

Common indications, justification, and optimisation of radiologic procedures during pregnancy (10 min)

Erich Sorantin; Graz / Austria

Medical irradiation and dose exposure to the conceptus (10 min)

Annalisa Trianni; Trento / Italy

Communicating the risk and benefit of medical irradiation to pregnant women (10 min)

Maria Murray; London / United Kingdom

Open forum discussion (25 min)



# RC 2204 - Pros and Cons: Low and ultra-low dose CT should be used for imaging thoracic disorders

Categories: Chest, EuroSafe Imaging/Radiation Protection, Imaging Informatics, Physics in Medical Imaging, Professional Issues

**ETC Level:** ALL LEVELS

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Martine Rémy-Jardin; Lille / France

**Chairperson's introduction** (6 min)

Martine Rémy-Jardin; Lille / France

**PRO** (12 min)

Pierluigi Ciet; Rotterdam / Netherlands

**CON** (12 min)

Mathias Prokop; Nijmegen / Netherlands

Panel discussion: Radiation dose exposure can often be massively saved in chest imaging (30 min)





# RC 2207 - Imaging of focal renal lesions

Categories: Abdominal Viscera, Genitourinary, Imaging Methods, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Michele Bertolotto; Trieste / Italy

Chairperson's introduction (5 min)

Michele Bertolotto; Trieste / Italy

What is the best imaging method to characterize solid renal lesions? (15 min)

Harriet Thoeny; Bern / Switzerland

Update on Bosniak classification to characterise cystic renal lesions (15 min)

Carlos Nicolau; Barcelona / Spain

What is the value of contrast-enhanced US in the assessment of renal masses (15 min)

Jean Michel Correas; Paris / France

Panel discussion: How to report pertinent findings in a structured way? CT vs MRI vs US? (10 min)



# RC 2211 - Multiple sclerosis (MS) and other inflammatory diseases

Categories: Imaging Methods, Neuro, Professional Issues

ETC Level: LEVEL I

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Alejandro Rovira Cañellas; Barcelona / Spain

**Chairperson's introduction** (5 min)

Alejandro Rovira Cañellas; Barcelona / Spain

MS: current criteria for diagnosis and follow-up (15 min)

Alejandro Rovira Cañellas; Barcelona / Spain

Neuromyelitis optica spectrum disorder (NMOSD): aquaporin 4 and MOG disease (15 min)

Majda M. Thurnher; Vienna / Austria

**Update on autoimmune diseases and encephalitis** (15 min)

Tarek A. Yousry; London / United Kingdom

Panel discussion: Benefits of a standardised MRI protocol for follow-up (10 min)



# RC 2213 - MRI scanning with cardiac devices: the new routine

Categories: Cardiac, Education, Imaging Methods, Physics in Medical Imaging

ETC Level: LEVEL III

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

**Moderator:** 

Osvaldo Rampado; Turin / Italy

Chairperson's introduction (5 min)

Osvaldo Rampado; Turin / Italy

The cardiologist's point of view (15 min)

Cornelis Allaart; Amsterdam / Netherlands

The radiologist's point of view (15 min)

Jesse Habets; The Hague / Netherlands

The physicist's point of view (15 min)

Aaron McCann; Belfast / United Kingdom

Panel discussion: What is the next development you most want to see? (10 min)



# OF 22Y - Help me to get it published

**Date:** July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

### **Moderators:**

Riccardo Muglia; Bergamo / Italy Michail Klontzas; Heraklion / Greece



# RC 2201 - Liver ablations: treatment, evaluation, and follow-up

Categories: Abdominal Viscera, Interventional Oncologic Radiology, Interventional Radiology

ETC Level: LEVEL I+II

Date: July 17, 2022 | 08:00 - 09:00 CEST

CME Credits: 1

### **Moderator:**

Elisabeth Genevieve Klompenhouwer; Amsterdam / Netherlands

### **Chairperson's introduction** (5 min)

Elisabeth Genevieve Klompenhouwer; Amsterdam / Netherlands

### Principles of liver ablations (15 min)

Christoph Johannes Zech; Basel / Switzerland

### **Treatment response evaluation** (15 min)

Elisabeth Genevieve Klompenhouwer; Amsterdam / Netherlands

### Follow-up of liver ablations: the guidelines (15 min)

Monique Maas; Amsterdam / Netherlands

Panel discussion: Case-based (10 min)



# **HD 5 - Highlights of the Day**

**Date:** July 17, 2022 | 09:15 - 09:30 CEST

# **Moderator:**

Regina G. H. Beets-Tan; Amsterdam / Netherlands



# RC 2306 - Pros and Cons: Functional, molecular and hybrid imaging will replace many morphological measures of response within RECIST

Categories: Hybrid Imaging, Molecular Imaging, Nuclear Medicine, Oncologic Imaging, Translational Imaging

ETC Level: LEVEL III

Date: July 17, 2022 | 09:30 - 10:30 CEST

CME Credits: 1

#### **Moderators:**

Giulia Zamboni; Verona / Italy

Ferdia Aidan Gallagher; Cambridge / United Kingdom

### Chairpersons' introduction (5 min)

Gary Cook; London / United Kingdom

Ferdia Aidan Gallagher; Cambridge / United Kingdom

**PRO** (15 min)

Egesta Lopci; Rozzano / Italy

**CON** (15 min)

Laure S. Fournier; Paris / France

Panel Discussion: What is the role for functional, molecular and hybrid imaging as companion biomarkers of drug response? (25 min)





## RPS 2305b - Artificial intelligence in abdominal imaging

Categories: Abdominal Viscera, Artificial Intelligence & Machine Learning

Date: July 17, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

### **Moderator:**

Elisabeth Genevieve Klompenhouwer; Amsterdam / Netherlands

Artificial intelligence support system to improve the diagnostic accuracy of radiologist in differentiating colon carcinoma and diverticulitis in computed tomography (8 min)

Sebastian Ziegelmayer; München / Germany

Predicting the progression of branch-duct intraductal papillary mucinous neoplasms using a DenseNet (8 min)

Manuel Debić; Heidelberg / Germany

External validation of A CT-based radiomics model for prediction of local tumour progression after thermal ablation In colorectal liver metastases (8 min)

Denise van der Reijd; Amsterdam / Netherlands

Deep learning for automatic detection of the main pancreatic duct dilatation (8 min)

Clément Abi Nader; Paris / France

Are we there yet? The value of deep learning in a multicentre-setting for response prediction of locally advanced rectal cancer to neoadjuvant chemoradiotherapy (8 min)

Barbara Daria Wichtmann; Bonn / Germany

EOB-MR based radiomics analysis to assess clinical outcomes following liver resection in colorectal liver metastases (8 min)

Federica Dell'Aversana; Naples / Italy



# RPS 2305a - New trends in artificial intelligence (AI) and steps for AI standardisation

Categories: Artificial Intelligence & Machine Learning, Imaging Informatics, Imaging Methods

Date: July 17, 2022 | 09:30 - 10:30 CEST

**CME Credits:** 1

**Moderator:** 

Merel Huisman; Nijmegen / Netherlands

The impact of digitalisation on COVID-19 outcomes and government responses (8 min)

Helen Heinrichs; Aachen / Germany

Innovation trends in radiology: is it a long way to the top? (8 min)

Larisa Gorenstein; Ramat Gan / Israel

Selecting, evaluating and monitoring artificial intelligence models for clinical use (8 min)

Bibb Allen; Birmingham / United States

The Image Biomarker Standardisation Initiative (IBSI) on reproducible convolutional radiomics (8 min)

Alex Zwanenburg; Dresden / Germany

Towards personalised predictions in medical imaging: Siamese networks, Gaussian processes and memory networks for colonic transit time-series data (8 min)

Brendan S Kelly; Dublin / Ireland

QuantImage v2: a clinician-in-the-loop cloud platform for radiomics research (8 min)

Adrien Depeursinge; Sierre / Switzerland

Continual active learning for efficient image labelling while image characteristics change (8 min)

Matthias Perkonigg; Wien / Austria



# PP 23 - Adding up from professional issues, GI and emergency imaging

Categories: Emergency Imaging, GI Tract, Professional Issues, Radiographers

Date: July 17, 2022 | 09:30 - 10:30 CEST

**CME Credits:** 1

### **Moderator:**

Jelle O. Barentsz; Nijmegen / Netherlands

Building a no-blame culture in radiology departments and driving clinical quality to a high level: shared experience from 13 European countries (8 min)

Athanasia Papachristodoulou; Budapest / Hungary

Communication dose exposure for common radiological procedures: what the patients would like know (8 min)

Sergio Salerno; Palermo / Italy

Revisiting the general linear model for radiology research (8 min)

José F. Castro Pereira; Almada / Portugal

Common and uncommon errors in emergency ultrasound: what the radiologist needs to know (8 min)

Vittorio Sabatino; Naples / Italy

PERC criteria: does it reliably exclude the diagnosis of a pulmonary embolism? (8 min)

Anushka Sathiyakeerthy; London / United Kingdom

Role of diagnostic imaging technologists during the COVID-19 pandemic: the importance of organisation and planning in the first line (8 min)

Diego Ignacio Ribas Mercau; Sabadell / Spain

A nomogram based on multi-modal ultrasound for pre-operative prediction of microvascular invasion and recurrence of hepatocellular carcinoma (8 min)

Xian Zhong; Maastricht / Netherlands

CT texture analysis of primary and metastatic pancreatic ductal adenocarcinomas: value in assessment of histopathological grade and differences between primary and metastatic lesions (8 min)

Michael Janisch; Graz / Austria

Multi-colour magnetic particle imaging for real-time detection of gastrointestinal hemorrhage (8 min)

Christoph Riedel; Hamburg / Germany



### RPS 2310 - Osteoporosis and metabolic

Categories: EuroSafe Imaging/Radiation Protection, General Radiology, Imaging Methods, Musculoskeletal

Date: July 17, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

### **Moderator:**

Alberto Bazzocchi; Bologna / Italy

Diagnostic accuracy of quantitative dual-energy CT-based volumetric bone mineral density assessment for the prediction of osteoporosis-associated fractures (8 min)

Ibrahim Yel; Frankfurt / Germany

Osteoporosis detection via T-score measurement and hydroxyapatite quantification in CT Imaging: a multicentric, phantom-based study (8 min)

Viktoria Palm; Heidelberg / Germany

Association of artificial intelligence-derived bone attenuation with bone mineral density on quantitative CT~(8~min)

Yali Li; Zhengzhou / China

Bone mineral density differences between femurs of scoliotic patients undergoing quantitative computed tomography analysis (8 min)

Francesca Serpi; Milan / Italy

Evaluation of image quality and accuracy of bone mineral density quantification by quantitative CT with deep-learning iterative reconstruction (8 min)

Yali Li; Zhengzhou / China

**Dual-energy CT-based monitoring of treatment-induced bone marrow changes in lung cancer patients: preliminary results** (8 min)

Sebastian Werner; Tübingen / Germany

Sarcopaenia may differentiate patients with wild-type from mutant-type gastrointestinal stromal tumour (8 min)

Xiaoping Yi; Changsha / China

Application of low-tube current using ASiR-V in the accuracy of spinal QCT in a multicentre clinical research with a European Spine Phantom (8 min)

Yao Jun Jiang; Zhengzhou / China

The effect of iodine contrast enhancement in CT on the measurement of bone mineral density in QCT (8 min)



# BUILDING BRIDGES JULY 13-17 | VIENNA

Mingyue Zhao; Dalian / China

The effect of gadolinium (Gd) and gadolinium-based contrast agents (GBCAs) on osteoblasts (8 min)

Franziska Silvia Strunz; Bern / Switzerland



# **RPS 2313 - Computed tomography (CT)**

Categories: Chest, Contrast Media, Musculoskeletal, Physics in Medical Imaging

Date: July 17, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Moderator:** 

Stefan Sawall; Heidelberg / Germany

Estimating the high scatter frequencies caused by coarse anti-scatter grids in x-Ray CT (8 min)

Julien Frank Josef Erath; Heidelberg / Germany

Scanning outside the localiser borders in chest CT: a multicentre study (8 min)

Niki Fitousi; Leuven / Belgium

Personalised iodine contrast media injection in liver MDCT (8 min)

Federica Zanca; Leuven / Belgium

Optimising CT perfusion acquisition parameters based on digital perfusion phantoms: obtaining maximum precision for a specific radiation exposure setting (8 min)

Stephan Skornitzke; Heidelberg / Germany

Application of low-tube current with deep-learning iterative reconstruction in the evaluation of CT image quality and accuracy of bone mineral density quantification: a phantom study (8 min)

Yali Li; Zhengzhou / China

Advanced physics-based image quality assessment of a commercial super resolution deep learning reconstruction algorithm for cardiac radiology applied to a wide volume computed tomography system (8  $\min$ )

Kirsten Boedeker; Los Angeles / United States

Variability of water-equivalent diameter (Dw) with tube potential of CT scans (8 min)

Abdullah Abuhaimed; Riyadh / Saudi Arabia

Impact of technology on local clinical dose reference levels in MDCT (8 min)

Benoît Dufour; Sion / Switzerland

Synthesising 4D CBCT scans from 3D CBCT phantom acquisitions (8 min)

Julien Frank Josef Erath; Heidelberg / Germany



# BUILDING BRIDGES JULY 13-17 | VIENNA

Comparison of 3D-printed phantom parts with a conventional anthropomorphic phantom (8 min)

Patrizia Kunert; Neuherberg / Germany

Proposal of SSIM suitable for 3D medical images (8 min)

Akira Hasegawa; Chapel Hill / United States



# RC 2311 - Clinical spine neuroimaging

Categories: Imaging Methods, Interventional Oncologic Radiology, Musculoskeletal, Neuro, Paediatric Imaging

ETC Level: LEVEL I+II

Date: July 17, 2022 | 09:30 - 10:30 CEST

CME Credits: 1

**Moderator:** 

Luc Van Den Hauwe; Ekeren / Belgium

**Chairperson's introduction** (5 min) Luc Van Den Hauwe; Ekeren / Belgium

Congenital spine lesions (15 min)

Andrea Rossi; Genoa / Italy

Imaging of back pain: upper and lower (15 min)

Tilak Das; Cambridge / United Kingdom

Minimally invasive treatment of back pain (15 min)

Luigi Manfré; Catania / Italy

Panel discussion (10 min)



# RC 2308 - Acute head and neck imaging

Categories: Emergency Imaging, Head and Neck, Imaging Methods, Ultrasound, Vascular

ETC Level: LEVEL I+II

Date: July 17, 2022 | 09:30 - 10:30 CEST

CME Credits: 1

**Moderator:** 

Jan Casselman; Brugge / Belgium

**Chairperson's introduction** (5 min) Agnieszka Trojanowska; Lublin / Poland

Facial and skull base trauma imaging (15 min)

Jan Casselman; Brugge / Belgium

Imaging infections of the head and neck (15 min)

Steve Colley; Birmingham / United Kingdom

Imaging of other head and neck emergencies: epistaxis, foreign bodies, and vascular trauma (15 min)

Damien-Arthur Varoquaux; Marseille / France

Panel discussion: Is there a role for radiography, ultrasound, or MRI in acute head and neck imaging: the panel's experience (10 min)



# Meets 23 - Radiology skill set needed for Malaysia in facing battle with COVID-19

Categories: Breast, Chest, Management/Leadership, Oncologic Imaging, Professional Issues

ETC Level: LEVEL III

Date: July 17, 2022 | 09:30 - 10:30 CEST

CME Credits: 1

#### **Moderators:**

Andrea Grace Rockall; Godalming / United Kingdom Norlisah MohdRamli; Kuala Lumpur / Malaysia

Chairperson's introduction: Inter-society relationship and radiology in the post-COVID-19 era (10 min)

Norlisah MohdRamli; Kuala Lumpur / Malaysia

Radiology meeting the clinician's expectation in the battle with COVID-19 (15 min)

Aida Abdul Aziz; SUNGAI BULOH / Malaysia

An alternate skill set in assisting the national vaccination programme (15 min)

Eric Chung; PETALING JAYA / Malaysia

Impact of the COVID-19 pandemic on breast cancer care and radiological perspectives (15 min)

Kartini Rahmat; Kuala Lumpur / Malaysia

Panel discussion (5 min)



# OF 23Y - Women in radiology: does gender have an impact on career?

Categories: Education, Management/Leadership, Professional Issues, Research, Students

**ETC Level:** ALL LEVELS

Date: July 17, 2022 | 09:30 - 10:30 CEST

CME Credits: 1

### **Moderator:**

Laura Oleaga Zufiria; Barcelona / Spain

# **Chairperson's introduction** (5 min) Hedvig Hricak; New York / United States

# Advancing your career and finding fulfillment (10 min)

Hedvig Hricak; New York / United States

### Gender disparity study in Spain (10 min)

Laura Oleaga Zufiria; Barcelona / Spain

## My personal experience as a female resident (10 min)

Sue Barter; Bedford / United Kingdom Ivana Blazic; Belgrade / Serbia

Discussion (25 min)



# OF 23R - Recommendations for setting alerts in patient dose values

Categories: EuroSafe Imaging/Radiation Protection, Imaging Methods, Interventional Radiology, Professional Issues, Radiographers

**ETC Level:** ALL LEVELS

Date: July 17, 2022 | 09:30 - 10:30 CEST

CME Credits: 1

**Moderator:** 

Reinhard W.R. Loose; Nürnberg / Germany

Introduction (5 min)

Reinhard W.R. Loose; Nürnberg / Germany

Dose notifications and alerts: how to implement and use them (15 min)

Virginia Tsapaki; Vienna / Austria

Dose alerts in interventional radiology: how to monitor procedures and avoid skin injuries (15 min)

Efstathios P. Efstathopoulos; Alimos / Greece

The use of dose notifications and alerts to optimise procedures in CT (15 min)

Michael Lell; Nuremberg / Germany

Open forum discussion (10 min)



### E<sup>3</sup> 2332 - Renal masses

Categories: Genitourinary, Imaging Methods, Interventional Oncologic Radiology, Multidisciplinary, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 17, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

### **Moderator:**

Marie-France Bellin; Le Kremlin Bicêtre / France

### **Chairperson's introduction** (5 min)

Marie-France Bellin; Le Kremlin Bicêtre / France

### Management options of renal masses in the frail patient (20 min)

Grant Stewart; Cambridge / United Kingdom

### Focal treatment of solid renal masses (20 min)

Bernhard Gebauer; Berlin / Germany

### Multimodality staging of renal cell carcinoma: pearls and pitfalls (15 min)

Iztok Caglič; Cambridge / United Kingdom

### Multidisciplinary tumour board: case-based panel discussion (30 min)

Marie-France Bellin; Le Kremlin Bicêtre / France



# E<sup>3</sup> 2323 - Gynaecology and obstetrics

Categories: Genitourinary ETC Level: LEVEL I+II

Date: July 17, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Moderator:** 

Vlad Bura; Cambridge / United Kingdom

**Chairperson's introduction** (6 min) Vlad Bura; Cambridge / United Kingdom

Imaging of the uterus (28 min)

Ramona Woitek; Cambridge / United Kingdom

**Disorders of the adnexa** (28 min) Rosemarie Forstner; Salzburg / Austria

Acute gynaecological and obstetric disorders (28 min)

Lucia Manganaro; Rome / Italy



# E<sup>3</sup> 2321b - Imaging biomarkers of diffuse liver disease

Categories: Abdominal Viscera, Imaging Methods, Translational Imaging, Ultrasound

ETC Level: LEVEL ||+|||

Date: July 17, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Multiparametric MRI** (45 min) Emanuele Neri; Pisa / Italy

**Multiparametric US** (45 min) Vito Cantisani; Roma / Italy



# E<sup>3</sup> 2321a - Breast lesions of uncertain malignant potential (B3 lesions): the management conundrum

Categories: Breast, General Radiology, Interventional Oncologic Radiology, Oncologic Imaging

ETC Level: LEVEL II

Date: July 17, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Imaging appearance of B3 lesions** (45 min)

Pascal A.T. Baltzer; Vienna / Austria

The clinical management of B3 lesions (45 min)

Simone Schiaffino; Lugano / Switzerland



# E<sup>3</sup> 2318 - Paediatric brain tumours: a multidisciplinary approach

Categories: Imaging Methods, Multidisciplinary, Neuro, Oncologic Imaging, Paediatric Imaging

Date: July 17, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Moderator:** 

Birgit B. Ertl-Wagner; Toronto / Canada

**Chairperson's introduction** (2 min) Birgit B. Ertl-Wagner; Toronto / Canada

Neurooncology and neuroradiology: why we need each other - the oncologist's perspective (10 min)

Uri Tabori; Toronto, ON / Canada

Paediatric brain tumours in the molecular age (10 min)

Birgit B. Ertl-Wagner; Toronto / Canada

Challenges with response assessment (10 min)

Zoltan Patay; Memphis / United States

Multidisciplinary tumour board: case-based panel discussion (58 min)

Birgit B. Ertl-Wagner; Toronto / Canada



# BS 23b - The importance of professional engagement

Categories: Management/Leadership, Professional Issues, Radiographers, Research, Students

Date: July 17, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Moderator:** 

Graciano Paulo; Coimbra / Portugal

Engaging with professional societies (18 min)

Charlotte A. Beardmore; London / United Kingdom

Active continuing professional development (CPD) opportunities (18 min)

Engaging with research (18 min)

Joana Santos; Coimbra / Portugal

The importance of a multidisciplinary outlook (18 min)

Bo Redder Mussmann; Odense C / Denmark

Panel discussion: What are the barriers and solutions to professional engagement? (18 min)



# BS 23a - Thorax: high-resolution computed tomography (HRCT) of lung disease

**Categories:** Chest, Imaging Methods

ETC Level: LEVEL II

Date: July 17, 2022 | 09:30 - 11:00 CEST

CME Credits: 1.5

**Moderator:** 

Marie-Pierre Revel; Paris / France

**HRCT findings: parenchimal opacification** (30 min)

Marie-Pierre Revel; Paris / France

HRCT findings: air-filled lung cysts (30 min)

Nicola Sverzellati; Parma / Italy

HRCT findings: mosaic attenuation pattern/decreased attenuation (30 min)

Cornelia M. Schaefer-Prokop; Amersfoort / Netherlands



## **RPS 2311 - Contrast agents meet neuroimaging**

Categories: Artificial Intelligence & Machine Learning, Contrast Media, Imaging Methods, Neuro

Date: July 17, 2022 | 09:30 - 10:30 CEST

CME Credits: 1

### **Moderator:**

Salvador Pedraza Gutierrez; Girona / Spain

Gadoquatrane - a new tetrameric, high relaxivity, macrocyclic gadolinium-based contrast agent for MRI (8 min) Hubertus Pietsch; Berlin / Germany

Radiomic and volumetric analysis on the accumulation of gadolinium in the basal nuclei: a pilot study (8 min) Giorgio Piga; Sassari / Italy

Detection rate of MR myelography without intrathecal gadolinium in patients with newly diagnosed spontaneous intracranial hypotension (8 min)

Dana Kim; Seoul / Korea, Republic of

Efficacy and safety of gadopiclenol for central nervous system (CNS) magnetic resonance imaging (MRI): the PICTURE trial (8 min)

Christoph Groden; Mannheim / Germany

Differences in gadolinium retention of macrocyclic MR contrast agents in a rat model of subtotal renal failure (8 min) Roberta Bonafe; Colleretto Giacosa / Italy

Clinical efficacy of reduced-dose gadobutrol vs standard-dose gadoterate in contrast-enhanced CNS imaging: an international, multicentre, prospective, cross-over trial (LEADER-75) (8 min)

Jan Siegfried Endrikat; 13125 / Germany



# **RPS 2301 - Novelties in intestinal imaging**

Categories: GI Tract, Imaging Methods, Multidisciplinary, Oncologic Imaging, Research

Date: July 17, 2022 | 09:30 - 10:30 CEST

CME Credits: 1

### **Moderator:**

Ahmed Ba-Ssalamah; Vienna / Austria

FDG PET-CT to assess response of anal squamous cell carcinoma to chemoradiotherapy (8 min)

Joe Mercer; Manchester / United Kingdom

A radiomic model for identifying patients with locally advanced rectal cancer who will respond to neoadjuvant chemoradiotherapy (8 min)

Xiaoping Yi; Changsha / China

DW-MRI assessment of response to total neoadjuvant therapy in locally advanced rectal cancer (8 min)

Francesco Marruzzo; Rome / Italy

Locoregional nodal regrowth in rectal cancer patients following a Watch-and-Wait approach: a clinical challenge? (8 min)

Barbara Melissa Geubels; Amsterdam / Netherlands

Polyp detection as a quality indicator in a CT colonography service using a reduced bowel preparation without dietary restrictons (8 min)

Sergio Ruggiero; Latina / Italy

DWI ratios at MR-Enterography: a new way for inflammation degree assessment in Crohn's disease patients? (8 min)

Giuseppe Cicero; Messina / Italy

Correlation of unenhanced Computed Tomography scan findings with acute suppurative and necrotising appendicitis: a cross-sectional study (8 min)

Hazel Anne Tagle Tecson; San Juan City / Philippines



## RPS 2402 - Breast cancer staging and response to therapy

**Categories:** Breast, Oncologic Imaging **Date:** July 17, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

### **Moderator:**

Mirjan M. Nadrljanski; Belgrade / Serbia

A model to predict upstaging to invasive carcinoma in patients preoperatively diagnosed with low-grade ductal carcinoma in situ of the breast (8 min)

Daniela Ballerini; Milano / Italy

Determining breast cancer receptor status using MRI apparent diffusion coefficient (ADC) maps: a global perspective for resource-limited practice environments (8 min)

Aisha Lakhani; Nagpur / India

Diagnostic performance of imaging modalities for response of ductal carcinoma in situ in breast cancer patients treated with neoadjuvant systemic therapy: a systematic review and meta-analysis (8 min)

Thiemo van Nijnatten; Maastricht / Netherlands

Prediction of primary tumour and axillary lymph node response to neoadjuvant systemic therapy with dedicated breast 18F-FDG PET/MRI in breast cancer (8 min)

Thiemo van Nijnatten; Maastricht / Netherlands

Role of contrast-enhanced mammography (CEM) as a promising tool in preoperative staging of breast cancer (8 min)

Carlotta Rucci; Rome / Italy

Preoperative staging of invasive lobular carcinoma (ILC): contrast-enhanced mammography (CEM) as alternative for breast MRI? (8 min)

Marc B I Lobbes; Sittard-Geleen / Netherlands

The kinetic and morphologic changes of conventional and ultrafast dynamic contrast-enhanced MRI in breast cancer patients after neoadjuvant chemotherapy-preliminary report (8 min)

Ah Young Park; Seongnam-si / Korea, Republic of



# RC 2414 - Developments in magnetic resonance imaging

Categories: Imaging Methods, Physics in Medical Imaging, Professional Issues, Radiographers

Date: July 17, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

### **Moderators:**

Francis Zarb; Msida / Malta Mitja Rupreht; Maribor / Slovenia

### Chairpersons' introduction (5 min)

Francis Zarb; Msida / Malta Michael Riccabona; Graz / Austria

### Low-field imaging: where it fits in a modern MRI service (15 min)

Joan C. Vilanova; Girona / Spain

### Zero TE imaging: applications and considerations (15 min)

Tobias Wood; London / United Kingdom

### Remote scanning: the MRI: radiographers' friend or foe? (15 min)

Darren Hudson; Exeter / United Kingdom

Panel discussion: Now more than ever, there is a need for dedicated undergraduate and postgraduate MRI programmes (10 min)



# RPS 2411 - Multiple sclerosis (MS), inflammatory and infectious diseases

Categories: Imaging Methods, Neuro

Date: July 17, 2022 | 11:30 - 12:30 CEST

**CME Credits:** 1

**Moderator:** 

Jasmina Boban; Novi Sad / Serbia

The susceptibility of normal-appearing white matter by quantitative susceptibility mapping (QSM) as a new marker of disability progression in multiple sclerosis (8 min)

Anna Paola Savoldi; Bergamo / Italy

Quantitative T1-mapping of multiple sclerosis lesions using magnetic resonance fingerprinting (8 min)

Graziella Donatelli; Pisa / Italy

Imaging of cns infections in patients with acquired immuno-deficiency syndrome. (8 min)

Soham Niren Naik; Bangalore / India

Brain structural and cerebral blood flow changes in patients recovered from COVID-19 pneumonia: a 3 months' follow up study (8 min)

Yuanyuan Qin; Wuhan / China

Cerebral microbleeds assessment and quantification in COVID-19 patients with neurological manifestation (8 min)

Angela Napolitano; Bergamo / Italy

Assessment of white matter alterations in patients of migraine using diffusion tensor imaging (8 min)

Civilee Nanda; New Delhi / India

Non-lesional sources of contrast enhancement on post-gadolinium "black-blood" 3D-T1-SPACE images in patients with multiple sclerosis (8 min)

Emanuele Pravatà; Lugano / Switzerland



# RT 24 - Building bridges: working from home in radiology, a blessing, or a curse?

Categories: Education, General Radiology, Management/Leadership, Multidisciplinary, Professional Issues

ETC Level: LEVEL ||+|||

Date: July 17, 2022 | 11:30 - 12:30 CEST

**Moderator:** 

Elmar Kotter; Freiburg / Germany

Chairperson's introduction (2 min)

Deniz Akata; Ankara / Turkey

The pros and cons of telework in radiology (8 min)

Richard Gunderman; Indianapolis / United States

ESR survey results on insourcing teleradiology services among partners of the same organisation (8 min)

Osman Ratib; Geneva / Switzerland

**Discussion** (42 min)

Richard Gunderman; Indianapolis / United States

Osman Ratib; Geneva / Switzerland Deniz Akata; Ankara / Turkey Emanuele Neri; Pisa / Italy Elmar Kotter; Freiburg / Germany

David Labajo; Madrid / Spain



# RC 2410 - MSK impingement

Categories: Imaging Methods, Interventional Radiology, Musculoskeletal, Ultrasound

ETC Level: LEVEL I+II

Date: July 17, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

**Moderator:** 

Christoph Schäffeler; Chur / Switzerland

**Chairperson's introduction** (5 min) Christoph Schäffeler; Chur / Switzerland

Shoulder impingement syndromes (15 min)

Christoph Schäffeler; Chur / Switzerland

Hip impingement syndromes (15 min)

Evangelia E. Vassalou; IRAKLION / Greece

Impingement syndromes of other joints (15 min)

Diana Afonso; Lisbon-Funchal / Portugal

Panel discussion: Basic vs advanced imaging protocols: reference values of femoral and acetabular parameters in femoroacetabular impingement and how to use them (10 min)



# OF 24Y - Undergraduate radiology education: a paradigm shift

Categories: Education, EuroSafe Imaging/Radiation Protection, Professional Issues, Students

**ETC Level:** ALL LEVELS

Date: July 17, 2022 | 11:30 - 12:30 CEST

CME Credits: 1

**Moderator:** 

Franz Kainberger; Vienna / Austria

Chairperson's introduction: A paradigm shift in teaching radiation protection (5 min)

Franz Kainberger; Vienna / Austria

Clinical and diagnostic reasoning: a new mantra in radiology education (10 min)

Laura Oleaga Zufiria; Barcelona / Spain

Teaching and learning: lessons learned from the EU Basic Safety Standards Directive (10 min)

Reinhard W.R. Loose; Nürnberg / Germany

ESR iGuide as an educational tool (10 min)

Torsten Diekhoff; Berlin / Germany

Discussion (25 min)



### RPS 2502 - What is new in screening

Categories: Breast, Evidence-Based Imaging, Imaging Methods

Date: July 17, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Gordana Ivanac; Zagreb / Croatia

The relationship between breast screening readers' real-life performance and performance in a self-assessment scheme in a national breast screening programme (8 min)

Yan Chen; Nottingham / United Kingdom

The performance of automated breast ultrasound, hand-held ultrasound, digital breast tomosynthesis and mammography in breast cancer detection: a comparative study in 2000 women (8 min)

Athina Vourtsis; Athens / Greece

Contrast-enhanced mammography in the work-up of screening recalls: first results of a prospective two-centre study (8 min)

Andrea Cozzi; Lugano / Switzerland

The effects of time of reading, hours of sleep, and high reporting volumes without breaks on radiological diagnostic efficacy when detecting breast cancer (8 min)

Mo'ayyad E Suleiman; Sydney / Australia

"Earlier than Early" breast cancer detection in BRCA carriers using computerised quantitative analysis of consecutive DCE-MRI scans: an AI-based feasibility study (8 min)

Debbie Anaby; Ramat Gan / Israel

Comparison of the performance of radiologists and radiographers in the double reading of screening mammograms in a national breast screening programme (8 min)

Jonathan James; Nottingham / United Kingdom

The yield of breast cancer surveillance in women with PTEN Hamartoma Tumour Syndrome (8 min)

Alma Hoxhaj; Amsterdam / Netherlands

Mammographic breast compression practice: vendor, screening and diagnostic mammography differences (8 min)

Anika Brameier; Münster / Germany

A pilot analysis to determine impact of actual time between screens on interval cancer rates in the English Breast Screening Programme (8 min)



Matthew G. Wallis; Cambridge / United Kingdom

Breast cancer screening: tomosynthesis plus synthesised mammograms versus digital mammography: first results of the TOSYMA RCT (8 min)

Walter Heindel; Münster / Germany

MammoWave - a novel microwave screening system for early breast cancer detection: implications in future breast screening (8 min)

Daniel Álvarez Sánchez-Bayuela; TOLEDO / Spain





# **CB - Case-Based Diagnosis Training**

Categories: Education, General Radiology, Radiographers

ETC Level: LEVEL I

Date: July 17, 2022 | 13:00 - 15:30 CEST

CME Credits: 2.5

### **Moderators:**

Soraya Robinson; Vienna / Austria Klaus M. Friedrich; Vienna / Austria

### Chairpersons' introduction (5 min)

Soraya Robinson; Vienna / Austria Klaus M. Friedrich; Vienna / Austria

### Liver (10 min)

Luis Marti-Bonmati; Valencia / Spain

### Neuro (10 min)

Daniela Prayer; Vienna / Austria

### Paediatrics (10 min)

Susan Cheng Shelmerdine; London / United Kingdom

### Maxillofacial (10 min)

Soraya Robinson; Vienna / Austria

### Genitourinary (10 min)

Michael Toepker; Wien / Austria

### Interlude: Food-related imaging signs (30 min)

Burce Özgen Mocan; Chicago / United States

### Head and neck (10 min)

Ursula Schwarz-Nemec; Vienna / Austria

### Chest (10 min)

Helmut Prosch; Vienna / Austria



Spine (10 min)

Klaus M. Friedrich; Vienna / Austria

Gastrointestinal (10 min)

Wolfgang Schima; Vienna / Austria

Breast (10 min)

Paola Clauser; Vienna / Austria



# RC 2502 - Breast tomosynthesis

Categories: Breast, Imaging Methods, Oncologic Imaging, Professional Issues, Translational Imaging

ETC Level: LEVEL II

Date: July 17, 2022 | 13:00 - 14:00 CEST

CME Credits: 1

### **Moderator:**

Silvia Perez Perez Rodrigo; Madrid / Spain

### Chairperson's introduction (5 min)

Silvia Perez Perez Rodrigo; Madrid / Spain

### Update of tomosynthesis in the screening setting (15 min)

Alberto Stefano Tagliafico; Genova / Italy

### Tomosynthesis vs contrast-enhanced MRI (15 min)

Christiane K. Kuhl; Aachen / Germany

### Update on tomo-guided interventions (a must in every radiology department?) (15 min)

Silvia Perez Perez Rodrigo; Madrid / Spain

Panel discussion: What is tomosynthesis, beyond a better mammography? (10 min)



### RPS 2507 - Male pelvis and bladder

Categories: Artificial Intelligence & Machine Learning, Genitourinary, Imaging Methods, Oncologic Imaging, Ultrasound

Date: July 17, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Athina C Tsili; Ioannina / Greece

Diagnostic performance of MRI and US in suspicion of penile fracture (8 min)

Markus Herbert Lerchbaumer; Berlin / Germany

A multivariate correlation analysis for determining the clinical and pathology features associated with VI-RADS assessment of bladder cancer in a multicentric prospective validation study (8 min)

Marco Bicchetti; Rome / Italy

Diagnostic performance of the Vesicle Imaging Reporting and Data System (VI-RADS) in differentiating NMIBC and MIBC: are the individual MRI sequences equivalent? (8 min)

Jasmin Gmeiner; Vienna / Austria

Radiomics-based machine learning for the prediction of lymph node metastases in bladder cancer (8 min)

Eva Kristina Gresser; Munich / Germany

Is transperineal ultrasound a reliable tool in the evaluation of postprostatectomy urinary incontinence? (8 min)

Anna Colarieti; Milan / Italy

MRI grading: prediction of prostate cancer aggressiveness (8 min)

Farid Ziayee; Dusseldorf / Germany

Network analysis integrating microRNA expression profiling with MRI biomarkers and clinical data for prostate cancer early detection: a proof-of-concept study (8 min)

Martina Pecoraro; Rome / Italy

Comparison of distinguishing capability from malignant to benign prostatic areas among CEST Imaging, DWI and combined discriminators (8 min)

Yoshiharu Ohno; Toyoake / Japan



# RC 2516 - Imaging of immunotherapy

Categories: Imaging Methods, Oncologic Imaging

ETC Level: LEVEL ||+|||

Date: July 17, 2022 | 13:00 - 14:00 CEST

CME Credits: 1

**Moderator:** 

Giulia Zamboni; Verona / Italy

Chairperson's introduction (5 min)

Giulia Zamboni; Verona / Italy

Classic pearls and pitfalls in immunotherapy imaging (15 min)

Clarisse Dromain; Lausanne / Switzerland

The bright side: response evaluation in immunotherapy (15 min)

Clemens C. Cyran; München / Germany

The dark side: recognising adverse effects (15 min)

Mizuki Nishino; Boston / United States

Panel discussion: Not good enough? Limits of morphological imaging in immunotherapy (10 min)



### RPS 2510b - Spine (musculoskeletal) and peripheral nerves

Categories: General Radiology, Imaging Methods, Musculoskeletal, Neuro

Date: July 17, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Chiara Zini; Firenze / Italy

Diagnostic value of water-fat separated images and CT-like images extracted from a single ultra-short echo time sequence for the evaluation of vertebral fractures and degenerative changes of the spine (8 min)

Georg Constantin Feuerriegel; Munich / Germany

Prospective deployment of a novel deep learning MRI reconstruction for accelerated spine imaging: an analysis of interchangeability, image quality and diagnostic confidence (8 min)

Haidara Almansour; Tübingen / Germany

"Ghost sign" and "mushroom sign" on preoperative cervical spine MRI: new signs of ruptured disc with intraoperative correlations (8 min)

Eun Kyung Khil; Hwaseong-si / Korea, Republic of

A novel MRI method for assessment of fatty infiltration of the paraspinal muscles in patients with lumbar spinal stenosis, reliability and association with patient reported pain and disability (8 min)

Hasan Banitalebi Banitalebi; Lorenskog / Norway

Radiomics of spinal muscles as predictor of allograft rejection in lung transplant (8 min)

Antonella Modugno; Padova / Italy

Correlation and association between lumbar spinal stenosis and paraspinal muscle morphology changes (8 min)

Farhana Binti Fadzli; Kuala Lumpur / Malaysia

Evolution and prognostic value of intervertebral disc T2-mapping values after ozone chemonucleolysis in patients with lumbar disc herniation (8 min)

Federico Bruno; L'Aquila / Italy

Appropriateness evaluation of lumbar spine magnetic resonance imaging referrals from two Irish university hospitals (8 min)

Ali Hasayan Alanazi; Dublin / Ireland

Ultra high-resolution US of the great auricular nerve: normal anatomy and pathological findings in parotidectomised patients (8 min)



Riccardo Picasso; Genoa / Italy

Novel demonstration of peripheral nerves with high-resolution tomographic ultrasound and high-field MR-tractography - a comparison study (8 min)

Suren Armeni Jengojan; Vienna / Austria

**CT-like MR-derived images for the assessment of craniosynostosis and other pathologies of the paediatric skull** (8 min) Yannik Niklas Leonhardt; München / Germany





### RPS 2511 - Brain tumour: glioma

Categories: Artificial Intelligence & Machine Learning, Neuro, Nuclear Medicine, Oncologic Imaging

Date: July 17, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

#### **Moderator:**

Sofie Van Cauter; Holsbeek / Belgium

Predictive accuracy of T2-FLAIR mismatch sign for the IDH-mutant, 1p/19q non-codeleted low grade glioma: an updated systematic review and meta-analysis (8 min)

Yoonah Do; Gyeonggi-do / Korea, Republic of

18 F-FLT compared to 11 C-MET positron emission tomography (PET) in the differential diagnosis between recurrent intracranial tumours and treatment-induced changes (8 min)

Ishita Hug; Uppsala / Sweden

Comparison of intravoxel incoherent motion imaging and dynamic susceptibility contrast perfusion in differentiating intracranial tumour recurrence from treatment-induced changes (8 min)

Jussi Hellström; Uppsala / Sweden

Subventricular zone involvement as an adverse prognostic factor for glioblastoma, IDH-wild type: survival model update in a brain tumour registry (8 min)

Jieun Kim; Seoul / Korea, Republic of

Magnetic resonance imaging-based risk stratification in diffuse glioma, not otherwise specified, achieves pathologic-level prognostication (8 min)

Eunbee Jang; Seoul / Korea, Republic of

Multiparametric MRI for T2 FLAIR mismatch sign in IDH mutant 1p19q non-codeleted astrocytoma (8 min)

Jian Ping Jen; Birmingham / United Kingdom

Machine learning-based radiomics can distinguish between glioblastoma and metastasis (8 min)

Markand Patel; Birmingham / United Kingdom

Correlation of in vivo MR spectroscopy and ex vivo 2-hydroxyglutarate (2-HG) concentration for prediction of isocitrate dehydrogenase (IDH) mutation status in patients with diffuse glioma (8 min)

Bart Roelf Jan van Dijken; Groningen / Netherlands

The influence of pre- and postsurgery volumetric MRI on high grade gliomas (8 min)



Maria Teresa Fernandez Taranilla; Madrid / Spain

Fast high-resolution metabolic imaging in glioma patients with non-cartesian compressed-sense MR spectroscopic imaging at 7 Tesla (8 min)

Ovidiu Andronesi; Charlestown / United States





# RPS 2510a - Ultrasound intervention and new applications of CT and MRI

Categories: EuroSafe Imaging/Radiation Protection, Imaging Methods, Interventional Radiology, Musculoskeletal, Ultrasound

Date: July 17, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Elena E. Drakonaki; Heraklion / Greece

Elastosonography evaluation after ESWT (Extracorporeal Shock Wave Therapy) treatment in plantar fasciopathy (8 min)

Daniele Fresilli; Rome / Italy

Ultrasound-guided percutaneous needle tenotomy of the long head of biceps tendon (8 min)

Amy Clare O'Brien; Dublin / Ireland

Weight bearing cone beam computed tomography (CBCT) of the distal tibiofibular syndesmosis: a systematic review and meta-analysis of healthy adults and those with syndesmotic injuries (8 min)

Firas J Raheman; Leicester / United Kingdom

The use of cone beam computed tomography in the diagnosis of acute radiocarpal and ligamentous wrist injuries - a systematic review and meta-analysis (8 min)

Firas J Raheman; Leicester / United Kingdom

Study the characteristic of occult rib fracture in spectral CT (8 min)

Si Pin Luo; Tianjin / China

Optimal keV-settings for virtual monoenergetic reconstructions of photon-counting detector CT datasets in patients status post posterior internal fixation of the spine (8 min)

Daniel Popp; Augsburg / Germany

Dynamic MRI measurement allows reliable control of success after surgical correction of patellofemoral instability and maltracking (8 min)

Kai-Jonathan Maas; Hamburg / Germany

Diffusion tensor imaging of the median nerve: a systematic review and meta-analysis of normal values in asymptomatic adults and how they change in carpal tunnel syndrome (8 min)

Djamila Mubashchira Rojoa; Leicester / United Kingdom

T2 mapping of paediatric patellar chondromalacia (8 min)

Elena Voronkova; Moscow / Russia



Comparison of standard and post-processed motion-insensitive propeller MRI sequences using a deep learning-based convolutional neural network for assessment of the shoulder joint (8 min)

Malwina Kaniewska; Zürich / Switzerland

Whole body photon counting detector CT showing promising results in metal artifact reduction compared to DECT (8 min)

Ann-Sofi Björkman; Linköping / Sweden



## RPS 2508 - Imaging: squamous cell carcinoma

Categories: Artificial Intelligence & Machine Learning, Head and Neck, Imaging Methods, Oncologic Imaging

Date: July 17, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Marco Ravanelli; Martinengo / Italy

Early response prediction of multiparametric functional MRI and 18F-FDG-PET in patients with head and neck squamous cell carcinoma treated with (chemo)radiation (8 min)

Roland Martens; Amsterdam / Netherlands

 ${\bf Comparison \ of \ image \ quality \ and \ diagnostic \ performance \ among \ DWI \ obtained \ by \ FASE \ and \ EPI \ sequences \ and \ reconstructed \ with \ and \ without \ deep \ learning \ reconstruction \ in \ suspected \ head \ and \ neck \ tumour \ (8 \ min) }$ 

Hirotaka Ikeda; Toyoake / Japan

MRI-based assessment of the mylohyoid muscle in squamous cell cancer of the floor of mouth, a 7-point score method: T2wi vs STIR and T1+Gdwi (8 min)

Jasmina De Groodt; Trieste / Italy

Radiomics model to predict radiation-induced temporal lobe injury of nasopharyngeal carcinoma before treatment (8 min)

Dan Bao; Beijing / China

Iterative metal artifact reduction improves image quality and lesion detection in CT imaging of head and neck cancer (8 min)

Iris Burck; Frankfurt / Germany

Comparison between path tracing and volume rendering 3D reconstructions in postsurgical assessment of head and neck complex surgery, followed by bone flap reconstruction in oncologic patients (8 min)

Nicolò Cardobi; Verona / Italy

Determining Human Papilloma Virus-status of head and neck squamous cell carcinomas using magnetic resonance imaging: a systematic review of the current literature (8 min)

Hedda Joanne van der Hulst; Amsterdam / Netherlands

Dynamic contrast-enhanced MRI in post-treatment head and neck squamous cell carcinoma: are MRI time signal intensity curves useful for differentiating recurrence from benign changes? (8 min)

Jannick De Tobel; Baulmes / Switzerland



MRI detection of suspected nasopharyngeal carcinoma: a systematic review and meta-analysis (8 min)

Vineet Vijay Gorolay; Sydney / Australia

Evaluation of the causal relationship between imaging-defined nodal features and event free survival in patients with oropharyngeal carcinoma (8 min)

Saad Ahmad Qureshi; Neston / United Kingdom

Magnetic resonance imaging for assessing cartilage invasion in recurrent laryngeal carcinoma after transoral laser microsurgery (8 min)

Paolo Rondi; Brescia / Italy





### RPS 2504 - Fibrotic lung diseases

Categories: Artificial Intelligence & Machine Learning, Chest, EuroSafe Imaging/Radiation Protection, Imaging Methods

Date: July 17, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

**Moderator:** 

Nicola Sverzellati; Parma / Italy

Artificial Intelligence-based detection of asbestosis in CT-scans (8 min)

Kevin Groot Lipman; Amsterdam / Netherlands

MRI ultra short echo-time sequence in systemic sclerosis-interstitial lung disease assessment and correlations with pulmonary function tests: comparison with CT (8 min)

Nicholas Landini; Treviso / Italy

Lung CT-based elastic registration technique in longitudinal evaluation of idiopathic pulmonary fibrosis (8 min)

Haishuang Sun; Changchun / China

HRCT chest reporting in patients with suspected idiopathic pulmonary fibrosis (IPF) as per ATS / ERS guidelines (8 min)

Ummara Siddique Umer; Peshawar / Pakistan

Pulmonary ultrashort TE MR imaging: comparison with high-resolution CT for the assessment of idiopathic pulmonary

fibrosis (8 min)

Xiaoyan Yang; Beijing / China

Prognostic implication of baseline HRCT findings on pulmonary function impairment in the course of fibrotic interstitial

lung disease (8 min)

Kaveh Akbari; Linz / Austria

Potential of photon-counting detector CT for radiation dose reduction in the assessment of interstitial lung disease in

patients with scleroderma compared to energy-integrated detector CT (8 min)

Lisa Jungblut; Zürich / Switzerland

Can deep learning improve image quality of low dose CT: a retrospective study in overweight interstitial lung disease

patients (8 min)

Ruijie Zhao; Beijing / China

Can deep learning keep balance between image quality and radiation dose in interstitial lung disease in prone position

CT scanning? (8 min)



Ruijie Zhao; Beijing / China

Assessment of interstitial lung disease in systemic sclerosis using semiquantitative and quantitative HRCT analysis (8 min)

Francesco Tiralongo; Catania / Italy

 $\textbf{HRCT correlation with clinical and cryobiopsy findings in cases of interstitial lung diseases (ILD) \ (8 \ \text{min}) \\$ 

Bhushan Rajendra Chaudhari; Kalyan / India





### RPS 2509 - Interventional management of malignant liver lesions

Categories: Artificial Intelligence & Machine Learning, Interventional Oncologic Radiology, Interventional Radiology, Multidisciplinary

Date: July 17, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

#### **Moderator:**

Thomas K. Karl Helmberger; Munich / Germany

Can microwave ablation of HCC modulate systemic inflammation and immunity? An analysis of factors affecting neutrophil-to-lymphocyte ratio and correlation with local tumour progression (8 min)

Angelo Della Corte; Milan / Italy

Prevalence and clinical significance of clinically evident portal hypertension in patients with hepatocellular carcinoma undergoing transarterial chemoembolisation (8 min)

Lukas Müller; Mainz / Germany

Laser-induced thermotherapy (LITT) versus microwave ablation (MWA) in hepatocellular carcinoma (HCC): therapy response and survival rates (8 min)

Thomas J. Vogl; Frankfurt a. Main / Germany

Prediction of late recurrence after radiofrequency ablation of HBV-related hepatocellular carcinoma with the aMAP risk score: a multicentre retrospective study (8 min)

Yu Jing Xin; Beijing / China

Treatment of primary and secondary liver tumours using microwave ablation (MWA): MR elastography as response parameter (8 min)

Thomas J. Vogl; Frankfurt a. Main / Germany

Radiofrequency ablation (RFA) of hepatocellular carcinoma (HCC): CT texture analysis of the ablated area to predict local recurrence (8 min)

Daniele Autelitano; Verona / Italy

Immunonutritive scoring for patients with hepatocellular carcinoma undergoing transarterial chemoembolisation: evaluation of the CALLY index (8 min)

Lukas Müller; Mainz / Germany

Augmented reality-guided percutaneous thermal ablation of small hepatic tumours: first clinical experience in human patients worldwide (8 min)

Luigi Alessandro Solbiati; Rozzano (Milano) / Italy



Comparison of combined chemoembolisation and microwave ablation with chemoembolisation alone in patients with hepatocellular carcinoma beyond the Milan criteria: a propensity scoring matching study (8 min)

Yu-dong Xiao; Changsha / China

Intra-arterial peptide receptor radiotherapy using 177 lutetium in combination with CAPTEM regimen for hepatic metastases from neuroendocrine origin: a better direction? (8 min)

Nagateja Bonala; Hyderabad / India

Does lipiodol retention pattern influence the treatment efficacy of computed tomography guided thermal ablation for hepatocellular carcinoma: a propensity scoring matching study (8 min)

Yu-dong Xiao; Changsha / China





# RPS 2503 - Procedural planning and prognosis of CT prior to TAVI/TAVR

Categories: Artificial Intelligence & Machine Learning, Cardiac, Evidence-Based Imaging, Vascular

Date: July 17, 2022 | 13:00 - 14:30 CEST

CME Credits: 1.5

#### **Moderator:**

Rodrigo Salgado; Antwerpen / Belgium

More than annulus sizing: risk prediction by comprehensive quantitative analysis of preprocedural CTA provides superior prediction of mortality compared to conventional risk scores in TAVR (8 min)

Tilman Stephan Emrich; Charleston / United States

Relationship between risk of development of major arrhythmic complications after transcatheter valve implantation and septo-valvular angle (8 min)

Leonardo Benelli; Roma / Italy

Combined Coronary CT-Angiography (cCTA) and TAVI planning: value of CT-FFR in cCTAs without morphological signs of obstructive coronary artery disease (8 min)

Robin F. Gohmann; Leipzig / Germany

Preliminary results on the comparison of resting full-cycle ratio and CT fractional flow reserve in patients with severe aortic valve stenosis (8 min)

Marcel Christian Langenbach; Cologne / Germany

Impact of ML-based coronary computed tomography angiography-derived fractional flow reserve on decision-making in patients with severe aortic stenosis undergoing transcatheter aortic valve replacement (8 min)

Verena Brandt; Charleston / United States

Diagnostic accuracy of CCTA for the evaluation of obstructive CAD in patients referred for TAVI: a systematic review and meta-analysis (8 min)

Alessandro Niccolò Annibale Serafini; Turin / Italy

Combined coronary CT-angiography and TAVI planning for ruling out significant coronary artery disease: added value of machine-learning-based CT-FFR (8 min)

Robin F. Gohmann; Leipzig / Germany

Multiparametric CT-characterisation of myocardial tissue remodelling in patients with severe aortic stenosis candidate to transcatheter aortic valve implantation (8 min)

Chiara Gnasso; Milan / Italy



Preoperative computed tomography evaluation of SuPRarEnal Aortic burDen predicts postprocedural acute kidney injury after transcatheter aortic valve replacement: the SPREAD-AKI study (8 min)

Umberto Viglino; Genoa / Italy

Cerebral embolisation after percutaneous transfemoral aortic valve implantation (TAVI) and impact on neurocognitive function in the RETORIC study (8 min)

Ferenc Imre Suhai; Budapest / Hungary

Impact of computed tomography defined sarcopaenia on long-term outcomes of older adults undergoing transcatheter aortic valve implantation (8 min)

Davide Tore; Asti / Italy



### RPS 2611 - Imaging and interventions in neurovascular diseases

Categories: Imaging Informatics, Interventional Radiology, Neuro

Date: July 17, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

### **Moderator:**

Dorothee Auer; Nottingham / United Kingdom

Diffusion tensor imaging in transcatheter aortic valve implantation; association of metric changes and cerebral ischaemic injury (8 min)

Andrea Varga; Budapest / Hungary

Brush sign and collateral supply as potential markers of infarct growth after successful thrombectomy (8 min)

Alexandre Bani Sadr; Lyon / France

Non-invasive assessment of cerebral microvascular changes for predicting cerebral hyperperfusion after revascularisation for moyamoya disease - an ASL MRI study (8 min)

Vivek Agarwal; Ludhiana / India

Sinovenous outflow patency predicts radiosurgical outcomes of dural arteriovenous fistulas in the transverse-sigmoid sinus (8 min)

Yong-Sin Hu; New Taipei / Taiwan, Chinese Taipei

Impact of the laboratory results and initial CT findings on cerebral vasospasm and intrahospital mortality in aneurysmal subarachnoid haemorrhage (8 min)

Valentina Opancina; Kragujevac / Serbia

Mobile commercial consumer-grade device as an option for telemedicine - evaluation of diagnostic performance and efficiency in intracranial arterial aneurysm detection (8 min)

Elif Can; Berlin / Germany

 $\textbf{Novel imaging for acute stroke - bioelectromagnetic tomography is safe and sensitive to detect stroke lesions (8 \, min)} \\$ 

Francisco Romero-Hinrichsen; Vienna / Austria



# RPS 2608 - Imaging: technical, vascular and infectious issues

Categories: Artificial Intelligence & Machine Learning, Head and Neck, Imaging Methods, Ultrasound, Vascular

Date: July 17, 2022 | 15:00 - 16:00 CEST

**CME Credits:** 1

### **Moderator:**

Melanie Schernthaner; Vienna / Austria

Accelerated 3D MR imaging for the semiautomatic airway segmentation in patients with obstructive sleep apnea syndrome (8 min)

Ulrike Grzyska; Luebeck / Germany

The impact of joint application of hybrid iterative reconstruction and adaptive filter on the photon starvation-induced streaking artifact of neck CT imaging (8 min)

Wenfeng Jin; Kunming / China

Evaluation of image quality and lesion detection using iterative metal artifact reduction in CT imaging of head and neck abscess (8 min)

Simon S. Martin; Frankfurt / Germany

 $\textbf{Angiographic carotid computed tomography image quality assessment for left arm versus right arm injections (8 \, min)} \\$ 

Raana Kanwal; Lahore / Pakistan

Mapping of facial artery and vein with high-resolution ultrasound (8 min)

Federico Pistoia; Genova / Italy

Increasing sensitivity and specificity for diagnosing giant cell arteritis with a multimodal algorithm: moving beyond temporal artery biopsy by mobilising multiple visual diagnostic tools (8 min)

Augustin Lecler; Paris / France

MRI in odontogenic neck infections: diagnostic accuracy and reliability (8 min)

Jaakko Heikkinen; Paimio / Finland





## RPS 2612 - Imaging in children: augmenting accuracy and reducing risk

Categories: Contrast Media, Emergency Imaging, Imaging Methods, Oncologic Imaging, Paediatric Imaging

Date: July 17, 2022 | 15:00 - 16:00 CEST

**CME Credits:** 1

**Moderator:** 

Lorenzo E. Derchi; Genoa / Italy

Pharmacokinetics, safety and efficacy of a new gadolinium-based contrast agent, gadopiclenol, in paediatric patients (2-17 years) undergoing MRI (8 min)

Silvia Bogdanova Tsvetkova; Plovdiv / Bulgaria

Combined metabolic and functional tumour volumes on PET/MRI in neuroblastoma: complementary or redundant information by 18F-FDG uptake and diffusion restriction? (8 min)

Maryanna Chaika; Tuebingen / Germany

Prognostic impact of CT severity score in childhood cancer with SARS-CoV-2 (8 min)

Amal Refaat; Cairo / Egypt

Accelerating whole-body MRI for follow-up and prevention of paediatric patients with cancer and cancer predisposition syndromes: preliminary results (8 min)

Judith Herrmann; Tübingen / Germany

Dose levels for paediatric fluoroscopic imaging in the Netherlands (8 min)

Goswin Otmar Croes; Hengelo / Netherlands

Diagnostic value of abdominal follow-up sonography in paediatric polytrauma patients with inconspicuous initial computed tomography (8 min)

Sophie-Charlotte Victoria Alt; Hamburg / Germany

Assessment of cancer risk associated with increased radiation field sizes for neonates undergoing chest radiography (8 min)

Wiam Elshami; Sharjah / United Arab Emirates



# RPS 2605 - Artificial intelligence (AI) in neuroradiology and head and neck imaging

Categories: Artificial Intelligence & Machine Learning, Head and Neck, Imaging Informatics, Neuro

Date: July 17, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

### **Moderator:**

Shahriar Islam; London / United Kingdom

Investigating data fusion and training strategies of artificial intelligence for the diagnosis of Parkinson's disease with Dopamine SPECT imaging (8 min)

Jerome Schmid; Geneva / Switzerland

Myelin age: automated estimation of myelin maturation on brain MRIs in infancy and early childhood (8 min)

Tuğba Akıncı D'Antonoli; Basel / Switzerland

A deep learning system for the automated quantification and screening of suspected ventriculomegaly from 2D ultrasound images of the fetal brain (8 min)

Hari Shankar; Chennai / India

Using 3D dense convolution networks to diagnose alzheimer's disease in real world data (8 min)

Hua Zhi Liu; Shenzhen / China

External validation of a single centre MR-based radiomic model predictive of locoregional control in oropharyngeal cancer (8 min)

Paula Bos; Hoogland / Netherlands



# RPS 2601 - Advances in hepatobiliary imaging

Categories: Abdominal Viscera, Contrast Media, Imaging Methods, Research, Ultrasound

Date: July 17, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

### **Moderator:**

Bart J. Op De Beeck; Edegem / Belgium

Hepatocellular Adenomas: Gd-EOB-DTPA-enhanced MR imaging features based on 2017 classification system (8 min) Justin Ruey Tse; Stanford / United States

Comparative study of MR elastography and dynamic contrast-enhanced imaging in the staging of NAFLD fibrosis (8 min)

Hao Ren; Beijing / China

Colorectal liver metastases: MRI appearances before and after chemotherapy (8 min)

Denise van der Reijd; Amsterdam / Netherlands

New release of Esaote QElaXto 2D-Shear Wave Elastography (SWE) to evaluate liver stiffness in diffuse chronic liver diseases (8 min)

Laura Maiocchi; Pavia / Italy



### **RPS 2604 - Lung nodules**

Categories: Artificial Intelligence & Machine Learning, Chest, Imaging Methods

Date: July 17, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

### **Moderator:**

Martijn Franklin Boomsma; Nigtevecht / Netherlands

Prediction of invasive adenocarcinomas manifesting as pure ground-glass nodules based on radiomic signature of low-dose CT in lung cancer screening (8 min)

Yong Li; Chengdu / China

An integrated nomogram combined clinical-semantic-radiomic features to predict invasive pulmonary adenocarcinomas in subjects with subsolid nodules (8 min)

Fu-Zong Wu; Kaohsiung / Taiwan, Chinese Taipei

How can we help improve the identification of lung cancers mimicking unresolved community acquired pneumonias? (8 min)

Farah Dadnam; Cardiff / United Kingdom

Lung nodule morphology: effect of deep learning versus iterative reconstruction at different dose levels (8 min) Caro Franck; Edegem / Belgium

Ultrashort echo time pulmonary MRI: nodule detection and lung-RADS classification versus standard- or low-dose CTs (8 min)

Yoshiharu Ohno; Toyoake / Japan

Contextual lung nodule detection with adjacent slices: raising hope for early detection and reducing false positives per scan (8 min)

Stéphanie Lopez; Nice / France

Diagnostic validation of a deep-learning nodule detection algorithm in low-dose chest CT: determination of optimised dose thresholds in a virtual screening scenario (8 min)

Alan Arthur Peters; Bern / Switzerland



# RPS 2603 - The importance of epicardial and perivascular fat

Categories: Artificial Intelligence & Machine Learning, Cardiac, Multidisciplinary

Date: July 17, 2022 | 15:00 - 16:00 CEST

**CME Credits:** 1

### **Moderator:**

Rozemarijn Vliegenthart; Groningen / Netherlands

Epicardial adipose tissue attenuation and fat attenuation index: ex-vivo and in-vivo measurements with photon-counting CT (8 min)

Victor Mergen; Zurich / Switzerland

Additive value of epicardial adipose tissue quantification to coronary CT angiography derived plaque characterisation and CT fractional flow reserve for the prediction of lesion-specific ischaemia (8 min)

Verena Brandt: Charleston / United States

Potential role of epicardial adipose tissue as a biomarker of anthracycline cardiotoxicity (8 min)

Caterina Beatrice Monti; Milan / Italy

Left atrial enhancing epicardial adipose tissue volume fraction on cardiac CT: an independent predictor of atrial fibrillation 1-Year recurrence following pulmonary vein isolation (8 min)

Adrian Thomas Huber; Bern / Switzerland

Prediction of plaque progression based on pericoronal fat attenuation index combined with traditional parameters of coronary plaque (8 min)

Yinsu Zhu; Nanjing / China

Machine learning-derived radiomics signature of perivascular fat to predict three subtypes of coronary lesions (8 min)

Jing Yan; Shanghai / China

Prognostic value of pericoronary adipose tissue thickness measured using cardiac magnetic resonance imaging after revascularisation in patients with ST elevation myocardial infarction (8 min)

Yue Ma; Shenyang / China



# RPS 2615 - Cervical and cranial vascular imaging

Categories: Cardiac, Head and Neck, Neuro, Ultrasound, Vascular

Date: July 17, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

**Moderator:** 

Elias Johansson; Umeå / Sweden

Development and validation of CT-based nomogram for identifying symptomatic carotid plaque (8 min)

Binhao Zhang; Taizhou, Zhejiang / China

Relaxation-enhanced angiography without contrast and triggering (REACT) for the assessment of carotid artery stenosis in acute ischaemic stroke (8 min)

Lenhard Pennig; Cologne / Germany

Key factors for a rescue stenting strategy in acute intracranial atherosclerosis-related large vessel occlusion based on high-resolution vessel wall imaging (8 min)

Chen Cao; Tianjin / China

T1 mapping derived by STAGE may help assess the severity of oedema in patients with ischaemic stroke (8 min)

Lianfang Shen; Tianjin / China



## RPS 2607 - Diffuse renal pathologies and stone disease: are we better in the meantime?

Categories: Contrast Media, Genitourinary, Imaging Methods, Molecular Imaging, Ultrasound

Date: July 17, 2022 | 15:00 - 16:00 CEST

**CME Credits:** 1

### **Moderator:**

Alexandra Ljimani; Dusseldorf / Germany

Diffusion kurtosis imaging and arterial spin labelling for the noninvasive evaluation of persistent post-contrast acute kidney injury (8 min)

Bin Wang; Taiyuan Shanxi / China

Diagnostic value of contrast-enhanced ultrasound in renal grafts: a 12 year tertial referral centre experience (8 min)

Paul Spiesecke; Berlin / Germany

Association of adipose tissue volume with kidney function parameters (8 min)

Katharina Mueller-Peltzer; Freiburg / Germany

Diagnostics of radiographic contrast-induced nephropathy by functional renal MR perfusion imaging (8 min)

Alexandra Ljimani; Dusseldorf / Germany

Can virtual unenhanced images in dual-energy CT replace true unenhanced examination in measuring urinary stone volume? (8 min)

Yannan Cheng; Xi'an / China

Improvement of diagnostics of myeloma specific renal changes by functional MRI-biomarkers (8 min)

Birte Valentin; Düsseldorf / Germany



### RPS 2602 - Improving breast cancer staging and pre-operative imaging

Categories: Breast, Imaging Methods, Nuclear Medicine

Date: July 17, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

### **Moderator:**

Daniela Baditescu; Bucuresti / Romania

The CEDM performance in the presurgical evaluation of DCIS (8 min)

Elena Savi; Firenze / Italy

Breast lesions magnetic localisation: a European large scale evaluation in a national cancer institute (8 min)

Catherine Depretto; Milano / Italy

Predictive value of automated breast volume scanner in the preoperative evaluation of breast tissues planned for conservative mastectomy and prepectoral reconstruction (8 min)

Anna Anna D'Angelo; Rome / Italy

Multi-detector CT chest: can it replace contrast enhanced spectral mammography in breast cancer patients candidate for CT staging?! (8 min)

Al-Dhurani Salwa Yahya Ahmed; Cairo / Egypt

The relationship between combined 18F-FDG PET/MRI parameters of primary tumour and clinical-pathological factors in breast cancer patients with stage T1 tumours (8 min)

Lütfiye Özlem Atay; Ankara / Turkey

Influence of receptor expression and molecular subtypes on baseline 18F-FDG uptake in breast cancer: systematic review and meta-analysis (8 min)

Thiemo van Nijnatten; Maastricht / Netherlands



# RPS 2606 - Translational, hybrid and molecular imaging

Categories: Abdominal Viscera, Cardiac, Hybrid Imaging, Molecular Imaging, Nuclear Medicine, Translational Imaging

Date: July 17, 2022 | 15:00 - 16:00 CEST

CME Credits: 1

### **Moderator:**

Jirí Ferda; Plzen / Czechia

Effects of anti-TNF-therapy on inflammatory, structural and osteoblastic activity lesions in radiographic axial spondylarthritis: a prospective proof-of-concept study using PET/MRI of SJI and spine (8 min)

Nils-Martin Bruckmann; Düsseldorf / Germany

To evaluate the correlation of quantitative FDG PET/CT parameters with clinical and endoscopic findings for the Crohn's disease activity (8 min)

Sikandar Mohd Shaikh; Hyderabad / India

Interrelation between cardiac and brain small vessel disease: a quantitative PET-MRI study (8 min)

Bianca Mazini; Lausanne / Switzerland

Characterisation of morphologic and metabolic response in CAR-T cell treatment of lymphoma (8 min)

Michael Winkelmann; Munich / Germany

