

ECR 2021 - Best Research Presentation Abstracts

Abdominal Viscera

LI-RADS ancillary features favouring benignity: is there a role in LR-5 observations?

(RPS 101a-2)

D. S. Gagliano, R. Cannella, F. Vernuccio, M. Antonucci, G. Brancatelli; *Palermo/IT*

RPS 101a - *Advances in liver imaging* (Thursday, March 4, 2021; 09:15-10:15)

GI Tract

Prognostic significance of MRI-detected mesorectal fat thickness in rectal cancer: a risk factor for distance metastasis

(RPS 101b-2)

P. Tripathi, Z. Li, Y. Shen, X. Hu, D. Hu; *Wuhan/CN*

RPS 101b - *The cutting edge of GI imaging* (Saturday, March 6, 2021; 08:00-09:00)

Breast

A multimodal hybrid 18F-FDG PET/MRI radiomics model discriminating biological properties of malignant and benign breast lesions

(RPS 202-7)

V. Romeo¹, P. Clauser², P. Kapetas², P. A. Baltzer², S. Rasul², P. Gibbs³, K. Pinker-Domenig³, R. A. Woitek⁴,

T. H. Helbich²; ¹Naples/IT, ²Vienna/AT, ³New York, NY/US, ⁴Cambridge/UK

RPS 202 - *Beyond conventional breast imaging* (Sunday, March 7, 2021; 08:00-09:00)

Cardiac

Exposure to environmental tobacco smoke estimated using the SHSES scale and the aortic valve calcification score in the group of patients with arterial hypertension

(RPS 103-2)

P. Gac, M. Poreba, G. Mazur, R. Poreba; *Wroclaw/PL*

RPS 103 - *How to further refine personal cardiovascular risk stratification* (Wednesday, March 3, 2021; 09:15-10:15)

Chest

Pulmonary cysts as a diagnostic indicator of Birt-Hogg-Dubé syndrome in patients with renal cell carcinoma

(RPS 204-5)

A. H. Ashok, T. J. Sadler, S. Scullion, S. Karia, J. Babar, S. J. Marciniak, G. Stewart, E. Maher,

M. T. A. Wetscherek; *Cambridge/UK*

RPS 204 - *Body composition, COVID-19, and interstitial diseases in chest imaging* (Sunday, March 7, 2021;

15:30-16:30)

Imaging Informatics & Artificial Intelligence

Fully automatic COVID-19 lung and pneumonia lesion segmentation from CT images

(RPS 105-2)

I. Shiri¹, H. Arabi¹, Y. Salimi¹, A. Sanaat¹, A. Akhavanalaf¹, G. Hajianfar², D. Askari², K. R. Kalantari²,

H. Zaidi¹; ¹Geneva/CH, ²Tehran/IR

RPS 105 - *Artificial intelligence (AI) and COVID-19* (Saturday, March 6, 2021; 09:15-10:15)

Hybrid, Molecular and Translational Imaging

Bimodal instrument markers for magnetic particle and magnetic resonance imaging

(RPS 106-6)

F. Wegner¹, S. Cremers², K. Lüdtkke-Buzug¹, M. A. Koch¹, T. Friedrich¹, P. Borm², T. M. Buzug¹, J. Barkhausen¹,

M. Ahlborg¹; ¹Lübeck/DE, ²Düsseldorf/DE

RPS 106 - *Advances in hybrid and dual-modality imaging* (Thursday, March 4, 2021; 10:30-11:30)

Genitourinary

Remote-controlled manipulated transrectal biopsy of the prostate: a promising technique

(RPS 107-2)

H. Raat¹, R. Van Stiphout¹, A. van Gorp¹, J. O. Barentsz²; ¹Roermond/NL, ²Nijmegen/NL

RPS 107 - *The next generation of prostate interventions using state-of-the-art imaging techniques* (Friday, March 5,

2021; 09:15-10:15)

Head and Neck

Application of medical 3D printing in cochlear implantation for precise electrode array placement: a prospective study (RPS 208-2)

S. Agarwal, M. Grover, M. Bagarhatta, A. Prakash; *Jaipur/IN*

RPS 208 - *Thyroid imaging and otology/audiology* (Friday, March 5, 2021; 18:00-19:00)

Interventional Radiology

MRI-guided percutaneous cryoablation of small renal masses: automated 3D margin assessment using intraoperative MR-MR image fusion and correlation with local outcome (RPS 109-2)

N. S. de Jager¹, T. J. van Oostenbrugge¹, T. Paetz², S. F. M. Jenniskens¹, J. J. Futterer¹, H. F. Langenhuijsen¹, C. G. Overduin¹; ¹*Nijmegen/NL*, ²*Bremen/DE*

RPS 109 - *Improving interventional radiology (IR) procedure results through advanced technology* (Thursday, March 4, 2021; 18:00-19:00)

Musculoskeletal

Development of deep learning models to differentiate atypical lipomatous tumours and lipomas on MR images (RPS 110-4)

D. W. Kramp, C. E. von Schacky, T. Tomov, F. Navarro, C. Knebel, M. R. Makowski, K. Wörtler, S. Foreman, A. Gersing; *Munich/DE*

RPS 110 - *Deep learning and novel imaging applications in musculoskeletal radiology* (Saturday, March 6, 2021; 10:30-11:30)

Neuro

Carotid plaque characteristics predict recurrent ischemic stroke - The Plaque At RISK study: a prospective multicentre study to identify high-risk carotid plaques (RPS 111-3)

D. H. K. Dam-Nolen¹, M. Kassem², A. G. van der Kolk³, M. I. Liem⁴, D. Bos¹, P. J. Nederkoorn⁴, J. Hendrikse³, A. Van Der Lugt¹, E. Kooi²; ¹*Rotterdam/NL*, ²*Maastricht/NL*, ³*Utrecht/NL*, ⁴*Amsterdam/NL*

RPS 111 - *Advances in neurovascular imaging for stroke management* (Wednesday, March 3, 2021; 11:45-12:45)

Paediatric

Fully-automated segmentation of neuroblastic tumours on multi-sequence MRI using convolutional neural networks (RPS 112-2)

L. Cerda Alberich, L. Marti-Bonmati; *Valencia/ES*

RPS 112 - *Evaluating new imaging techniques for children* (Thursday, March 4, 2021; 19:45-20:45)

Physics in Medical Imaging

Bin-combination-based noise reduction for metal artifact reduction in photon-counting CT (RPS 113-2)

P. M. Trapp, A. Byl, L. Klein, S. Heinze, H-P. Schlemmer, S. Sawall, M. Kachelrieß; *Heidelberg/DE*

RPS 113 - *The ultimate goal: improvement of image quality* (Wednesday, March 3, 2021; 16:45-17:45)

Radiographers

A retrospective clinical audit on the quality of positioning standards in plain film radiography (RPS 114-2)

C. Nepomuceno, M-L. Ryan, T. Neville, J. Potočnik, L. Walsh, A. Toohey, V. Douglas, L. A. Rainford; *Dublin/IE*

RPS 114 - *Quality improvement in radiography* (Friday, March 5, 2021; 11:45-12:45)

Plaque inflammation-related metabolism and plaque features of instability: an initial exploration using corresponding PET/CT and MRI slices (RPS 114-7)

N. Giannotti^{1,2}, J. McNulty², S. J. Foley², S. Murphy², M. Marnane², G. Horgan², E. Kavanagh², M. J. O'Connell², P. Kelly²; ¹*Sydney/AU*, ²*Dublin/IE*

RPS 114 - *Quality improvement in radiography* (Friday, March 5, 2021; 11:45-12:45)

Radiotherapy education in the EU: impact on practitioners' mobility and patient safety (RPS 214-4)

J. G. Couto¹, S. L. McFadden², P. McClure², P. Bezzina¹, C. Hughes²; ¹*Msida/MT*, ²*Jordanstown/UK*

RPS 214 - *The radiography profession: a life-long learning experience* (Saturday, March 6, 2021; 19:45-20:45)

Vascular

Non-contrast magnetic resonance angiography (MRA) using inflow-sensitive inversion recovery (IFIR) technique for upper abdominal arterial vessels evaluation: comparison with CE-MRI and CTA (RPS 115-2)

M. Porta, P. A. Bonaffini, R. Simonini, M. Balbi, C. Maino, S. Sironi; *Bergamo/IT*

RPS 115 - *Modern techniques in vascular diagnostics* (Saturday, March 6, 2021; 14:15-15:15)

Oncologic Imaging

Gadoxetic acid MRI for the assessment of HCC response to Yttrium 90 radioembolisation: correlation with histopathology (RPS 116-2)

N. Vietti Violi¹, J. Gnerre², S. Hectors², O. Bane², A. Law², I. Fiel², B. Taouli²; ¹*Lausanne/CH*,
²*New York, NY/US*

RPS 116 - *Novel imaging biomarkers for assessment, treatment response, and outcome prognostication of cancers* (Wednesday, March 3, 2021; 15:30-16:30)

Emergency Imaging

Accuracy of MRI imaging for acute abdominal pain in pregnancy (RPS 117-3)

B. Buckley, M. C. Murphy, F. Delaney, T. Geoghegan, C. G. Cronin; *Dublin/IE*

RPS 117 - *The emergency department sees some of the most complex patients: how radiology can help* (Sunday, March 7, 2021; 19:45-20:45)