

## Auditorium 1 Thursday 23 August 2018

Thursday 23 August 2018

### Refresher course: Risk management in Radiotherapy

Auditorium 1

	Chairs: Katia PARODI, <i>Germany</i>
08:00 - 08:05	<b>Introduction</b> Katia PARODI, <i>Germany</i>
08:05 - 08:27	<b>The role of the MPE in risk management</b> Uwe WOLFF, <i>Austria</i>
08:28 - 08:50	<b>Practical examples of risk management in radiotherapy</b> Markus BUCHGEISTER, <i>Germany</i>

Thursday 23 August 2018

### Scientific Session (RT - Motion) Invited talk, Oral Presentations

Auditorium 1

	Chairs: Efi KOUTSOUELI, <i>Greece</i> Anna BÄCK, <i>Sweden</i>
09:00 - 09:20	<b>Systematic evaluation of lung-tumor motion using four-dimensional computed tomography</b> Anna BÄCK, <i>Sweden</i>
-	<b>Motion inclusive variations in bladder dose surface maps during the course of high-precision radiotherapy for prostate cancer</b> Oscar CASARES-MAGAZ, <i>Denmark</i>
-	<b>A 4D Monte Carlo (MC) dose calculation framework with statistical breathing phase sampling to quantify interplay effects</b> Florian KAMP, <i>Germany</i>
-	<b>DoseTracker: In-house developed software program for real-time reconstruction of motion-induced dose errors during radiotherapy</b> Simon SKOUBOE, <i>Denmark</i>
-	<b>Differences between real and planned dose distributions as a result of uncorrected patient rotation in radiotherapy</b> Václav NOVÁK, <i>Czech Republic</i>
-	<b>Treatment accuracy in surface guided deep-inspiration breath-hold radiotherapy for left-sided breast cancer</b> Esben WORM, <i>Denmark</i>
-	<b>4D lung tumor motion modelling using dynamic MLC tracking and EPID feedback</b> Nima ROSTAMPOUR, <i>Iran</i>
-	<b>Evaluation of optimized Slow-CT parameters with freebreathing margins based on spirometric system analysis</b> Maureen LAMARQUE, <i>France</i>

Thursday 23 August 2018

**Scientific Session (RT - Planning) Invited talk, Oral Presentations**

**Auditorium 1**

Chairs:

Loredana MARCU, *Romania*

Lidia STRIGARI, *Italy*

11:00 - 11:20

**Automated inverse planning strategies for biological optimization: state of the art and future perspective**

Lidia STRIGARI, *Italy*

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**Comparison of mean lung dose (MLD) obtained with multi-criteria optimization (MCO, RayStation), Progressive Optimizer (PRO, Eclipse) and predicted by homemade software DosePredictor for patients with stage III non-small cell lung cancer**

Anna ZAWADZKA, *Poland*

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**Error detection sensitivity of a commercially available system for 3D plan verifications**

Zaira KATSILIERI, *Germany*

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**Implementation of RapidPlan for head and neck cancer patients: the dosimetric advantages**

Anne HOLM, *Denmark*

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**Clinical implementation and evaluation of the Mobius3D system for independent dose calculation**

Maria SJÖLIN, *Denmark*

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**Advanced dose calculation algorithms in lung cancer radiotherapy: implications when treating in deep inspiration breath hold**

Mirjana JOSIPOVIC, *Denmark*

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**Does automation reduce the number of errors in quality control of treatment plans for external beam radiotherapy?**

Nikolaj JENSEN, *Denmark*

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**Contouring and dose reporting for lower urinary tract sub-structures in cervix cancer**

Sofia SPAMPINATO, *Denmark*

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**Quantifying the effect of increased tissue definition on inter-observer variation in contouring of organs at risk in lung cancer patients using motion-compensated imaging**

Joseph LEE, *United Kingdom*

Thursday 23 August 2018

**Lunch Break, Exhibition and Posters. 12.30 - 13.30 Lunch Symposium organised by Elekta Instrument: Ground Breaking Innovation in Advanced Radiation Medicine**

**Auditorium 1**

Thursday 23 August 2018

**Joint session EFOMP-ESTRO Multi-disciplinary working in Radiotherapy**

**Auditorium 1**

- Chairs:  
Jens M. EDMUND, *Denmark*
- 14:00 - 14:05 **The balance between the need to specialise and the need to have a broader expertise with advancing techniques**  
Jens M. EDMUND, *Denmark*
- 14:05 - 14:20 **Working in radiotherapy from the perspective of a nuclear medicine physicist**  
Ronald BOELLAARD, *Netherlands*
- 14:20 - 14:35 **Working in radiotherapy from the perspective of an MRI physicist**  
Lars E OLSSON, *Sweden*
- 14:35 - 14:50 **Can't live without you - working with radiotherapy physicists from the perspective of a radiation oncologist**  
Esther TROOST, *Germany*
- 14:50 - 15:00 **Panel discussion**

Thursday 23 August 2018

**Scientific Session (RT - Radiomics - Modelling) Oral Presentations**

**Auditorium 1**

- Chairs:  
Ivan VOGELIUS, *Denmark*  
Marco SCHWARZ, *Italy*
- **O-RAW: Ontology-guided Radiomics Analysis Workflow**  
Zhenwei SHI, *Netherlands*
- **Per-voxel Cox regression with interaction terms**  
Andrew GREEN, *United Kingdom*
- **A prospective study of dose-response relationship and NTCP of conductive hearing loss in patients undergoing head and neck radiotherapy**  
M Amin MOSLEH-SHIRAZI, *Iran*
- **Fano theory validation of the MCNP6.0 Monte Carlo code for medical applications**  
Pedro TELES, *Portugal*
- **Prediction of recurrences using diffusion driven growth modelling for glioblastoma**  
Jesper Folsted KALLEHAUGE, *Denmark*
- **Logistic regression modelling of radiation induced mucositis of H&N cancer patients**  
Christian Rønn HANSEN, *Denmark*
- **Modelling the risk of fatal acute toxicity following radiotherapy of lung cancer**  
Louise STERVIK, *Sweden*

Thursday 23 August 2018

**ECMP welcomes Germany - MR/US image guidance in radiation therapy**

**Auditorium 1**

Chairs:  
Katia PARODI, *Germany*  
Svenja IPSEN, *Germany*

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|---------------|---|
| 16:30 - 16:55 | <b>Clinical Deployment of the MRIdian Linac</b><br>Sebastian KLÜTER, <i>Germany</i>                         |
| 16:55 - 17:20 | <b>Initial experience with the Elekta Unity system</b><br>Daniela THORWARTH, <i>Germany</i>                 |
| 17:20 - 17:40 | <b>MR-guided radiotherapy at the LMU in Munich: preliminary studies</b><br>Florian KAMP, <i>Germany</i>     |
| 17:40 - 18:00 | <b>Ultrasound guidance in radiotherapy - renaissance through innovation</b><br>Svenja IPSEN, <i>Germany</i> |

## Auditorium 3 Thursday 23 August 2018

Thursday 23 August 2018

### Refresher course: Diffusion-Weighted MRI: Techniques, applications and challenges in Oncology

Auditorium 3

	Chairs: Lars G. HANSON, <i>Denmark</i>
08:00 - 08:05	<b>Introduction</b> Lars G. HANSON, <i>Denmark</i>
08:05 - 08:27	<b>Diffusion MRI: sequence optimisation in oncology</b> David LURIE, <i>United Kingdom</i>
08:28 - 08:50	<b>Diffusion-Weighted MRI: Techniques, applications and challenges in Oncology</b> Gisela HAGBERG, <i>Germany</i>

Thursday 23 August 2018

### Scientific Session (DR-MRI) Invited talk, Oral Presentations

Auditorium 3

	Chairs: Gunther HELMS, <i>Sweden</i> Lars G. HANSON, <i>Denmark</i>
09:00 - 09:20	<b>Challenges in quantitative MRI</b> Gunther HELMS, <i>Sweden</i>
-	<b>Fabrication of an anthropomorphic neonatal 3D printed head phantom, to be utilized as a quality assurance means for the optimization of the neonatal brain T1 and T2 weighted sequences on a 1.5T clinical MRI system</b> Georgios KALAITZAKIS, <i>Greece</i>
-	<b>Improved Absolute Metabolite Quantification by Localized Magnetic Resonance Spectroscopy Simulations</b> Oscar JALNEFJORD, <i>Sweden</i>
-	<b>Human in-vivo Magnetic Resonance Current Density Imaging (MRCDI) and MR Electrical Impedance Tomography (MREIT)</b> Cihan GÖKSU, <i>Denmark</i>
-	<b>Fast Field-Cycling MRI: novel contrast changes through switched magnetic fields</b> James ROSS, <i>United Kingdom</i>
-	<b>Spin coupling signal loss correlates with differentiation grade of lipomatous tumors: Preliminary results</b> Katerina NIKIFORAKI, <i>Greece</i>
-	<b>T2 and T* Relaxometry of Benign and Malignant Lipomatous Tumors</b> Katerina NIKIFORAKI, <i>Greece</i>
-	<b>Multiparametric MRI measurements of Renal Perfusion and Oxygenation</b> Bryan HADDOCK, <i>Denmark</i>

Thursday 23 August 2018

**Scientific Session (DR-MRI) Invited talk, Oral Presentations**

**Auditorium 3**

Chairs:

David LURIE, *United Kingdom*

Ioannis SEIMENIS, *Greece*

11:00 - 11:20

**Spatial distortions in MRI**

Ioannis SEIMENIS, *Greece*

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**Correlation of magnetic resonance spectroscopy and histological findings in brain tumors**

Dimitrios VERGANELAKIS, *Greece*

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**A new Signal-to-Noise ratio (SNR) measurement method based on low-pass filtering for Magnetic Resonance Imaging (MRI) Quality Control (QC) purposes**

Anou SEWONU, *France*

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**Quantitative DW-MRI for treatment evaluation in particle therapy: role of ADC maps estimation**

Giulia BUIZZA, *Italy*

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**Robustness of textural features in ADC Magnetic Resonance imaging maps among different contouring for prostate cancer patients**

Enrico MENGHI, *Italy*

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**Visualizing sites of increased cellularity and high permeability in soft tissue sarcomas**

Katerina NIKIFORAKI, *Greece*

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**Robust Radiomic Feature Selection in Magnetic Resonance Apparent Diffusion Coefficient Maps of Rectal Cancer**

Leonard WEE, *Netherlands*

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**Analysis of diffusion and haemodynamic maps from multi-parametric mri of prostate cancer**

Kenni ENGSTRØM, *Denmark*

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**Tumour segmentation in longitudinal diffusion weighted MRI of rectal cancer patients receiving radiotherapy**

Camilla SKINNERUP BYSKOV, *Denmark*

Thursday 23 August 2018

**Lunch Break, Lunch Symposia, Exhibition and Posters**

**Auditorium 3**

Thursday 23 August 2018

**Joint session EFOMP-AAPM Pregnancy and radiation protection in imaging and Nuclear Medicine**

**Auditorium 3**

	<b>Chairs:</b> Virginia TSAPAKI, <i>Greece</i>
14:00 - 14:05	<b>Introduction</b> Virginia TSAPAKI, <i>Greece</i>
14:05 - 14:25	<b>Radiation effects on the embryo and fetus</b> Cari BORRÁS, <i>United States</i>
14:25 - 14:45	<b>Everything you need to know about dose management of pregnant patients in medical imaging</b> John DAMILAKIS, <i>Greece</i>
14:45 - 14:55	<b>US Regulatory Requirements for Radiation Protection of Pregnant Patients and Medical Staff</b> Eugene LIEF, <i>United States</i>
14:55 - 15:00	<b>Panel Discussion</b>

Thursday 23 August 2018

**Scientific Session (DR-CT) Oral Presentations**

**Auditorium 3**

	<b>Chairs:</b> Mika KORTESNIEMI, <i>Finland</i> Francis VERDUN, <i>Switzerland</i>
-	<b>Toward 4D micro-CT and radiotherapy of small animals using all-optical, ultrashort X-ray sources: feasibility study and preliminary experimental results</b> Paolo RUSSO, <i>Italy</i>
-	<b>The acceptable quality doses (AQDs) in children undergoing CT examinations in Hamad Medical Corporation hospitals in Qatar</b> Mohammad Hassan KHARITA, <i>Qatar</i>
-	<b>Development of a national guideline for yearly constancy testing of image quality on CT scanners in Denmark</b> Asbjørn SEEGERT, <i>Denmark</i>
-	<b>Assessment of exposure and setting of local diagnostic reference levels for CT procedures</b> Birute GRICIENE, <i>Lithuania</i>
-	<b>Patient-specific dose and risk estimation for organ-based tube-current modulation in chest CT</b> Caro FRANCK, <i>Belgium</i>
-	<b>Towards Normalization of Contrast Enhancement of Pulmonary Parenchyma on Subtraction CT Imaging</b> Dagmar GROB, <i>Netherlands</i>

Chairs:

Annalisa TRIANNI, *Italy*

Klaus BACHER, *Belgium*

16:30 - 16:50

**Patient dosimetry in interventional radiology: concepts and tools**

Annalisa TRIANNI, *Italy*

- **Low Contrast Detectability assessment of dynamic angiographic images: spatio-temporal generalisation of Model Observer and comparison with 2AFC experiments**

Raffaele VILLA, *Italy*

- **Comparison between skin dose values of a software tool and GAFCHROMIC films using test fields and clinical cases**

Federica ROTTOLI, *Italy*

- **Patient dose monitoring in interventional radiology**

Paolo COLLEONI, *Italy*

- **Patient dose evaluation and optimization during Hysterosalpingography using digital X-Ray equipment**

Fabiola CRETTI, *Italy*

- **Skin and Organ Doses in Pediatric Interventional Cardiology Procedures**

Chadia RIZK, *Lebanon*

- **Assessment of dose efficiency of a modern x-ray fluoroscopy system using a model observer**

Michael SANDBORG, *Sweden*

- **Correlation between Cumulative Dose and Peak Skin Dose using GafChromic films for patients undergoing interventional cardiology procedures**

Chiara VALERO, *Italy*



## Auditorium 4 Thursday 23 August 2018

Thursday 23 August 2018

### Refresher course: Proton radiotherapy planning

Auditorium 4

	Chairs: Jens M. EDMUND, <i>Denmark</i>
08:00 - 08:05	<b>Introduction</b> Jens M. EDMUND, <i>Denmark</i>
08:05 - 08:50	<b>Treatment planning in protontherapy</b> Marco SCHWARZ, <i>Italy</i>

Thursday 23 August 2018

### Scientific Session (RT - Instrumentation) Invited talk, Oral Presentations

Auditorium 4

	Chairs: Michele STASI, <i>Italy</i> Carlo CAVEDON, <i>Italy</i>
09:00 - 09:20	<b>Future advances of radiotherapy Instrumentation</b> Carlo CAVEDON, <i>Italy</i>
-	<b>Response of ionization chambers in the presence of magnetic fields</b> Mohamad ALISSA, <i>Germany</i>
-	<b>Design of an optimised bow-tie filter for cone-beam CT image guidance for children.</b> Abigail BRYCE-ATKINSON, <i>United Kingdom</i>
-	<b>Helium as a range probe in carbon ion therapy</b> Christian GRAEFF, <i>Germany</i>
-	<b>On the potential of direct MV calibration of ionization chambers by secondary standards laboratories</b> Claus E. ANDERSEN, <i>Denmark</i>
-	<b>Optimization of Phase Space Files from Clinical Linear Accelerators</b> Juliana Cristina MARTINS, <i>Germany</i>
-	<b>Improved Dose Sensitivity of N-(isobutoxymethyl)acrylamide Polymer Gel Dosimeters for Radiation Therapy</b> Khalid RABAEH, <i>Jordan</i>
-	<b>Imaging Dose Assessment for Image Guided Radiotherapy Using a State of the Art Large-Bore CT</b> Maria HUFNAGL, <i>Austria</i>

Thursday 23 August 2018

**Scientific Session (RT - Protontherapy) Invited talk, Oral Presentations**

**Auditorium 4**

Chairs:

Jens M. EDMUND, *Denmark*

Oscar CASARES-MAGAZ, *Denmark*

11:00 - 11:20

**MRI-based synthetic CT applications for hadron dose planning**

Jens M. EDMUND, *Denmark*

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**Toward a new treatment planning system accounting for in-vivo proton range verification in proton therapy**

Liheng TIAN, *Germany*

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**Proton minibeam radiation therapy: a promising alternative for high-grade gliomas**

Yolanda PREZADO, *France*

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**Short-lived positron emitters for in-beam Positron Emission Tomography (PET) verification of helium therapy**

Ikechi OZOEMELAM, *Netherlands*

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**Preliminary test of innovative strip silicon detectors for therapeutic proton beam monitoring**

Omar HAMMAD ALÌ, *Italy*

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**Range uncertainty reduction in proton beam therapy via prompt gamma-ray detection**

Costanza PANAINO, *United Kingdom*

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**Comparative dose planning for Ru-106 brachytherapy and proton therapy for choroidal melanomas**

Charlotte ESPENSEN, *Denmark*

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**INSPIRE: INfraStructure in Proton International REsearch - a new Horizon2020 network**

Stine KORREMAN, *Denmark*

Thursday 23 August 2018

**Lunch Break, Exhibition and Posters. 12.30 - 13.30 Lunch Symposium organised by VIEWRAY: MR-Guided SBRT - Clinical Experience with MR-Guided On-Table Adaptive Therapy**

**Auditorium 4**

Thursday 23 August 2018

**Joint session EFOMP-COCIR Focus on BSS transposition in national legislation**

**Auditorium 4**

Chairs:

Klaus BACHER , *Belgium*

- 14:00 - 14:05 **Harmonized transposition of the BSS in the national legislations. What can be done together by Medical Physicists and manufacturers**  
Klaus BACHER , *Belgium*
- 14:05 - 14:20 **Information provided by manufacturers on equipment (BSS art 78)**  
Caterina BRUSASCO , *Belgium*
- 14:20 - 14:35 **EFOMP Guidelines on the transposition of EU BSS art.60 in National Legislations**  
Alberto TORRESIN, *Italy*
- 14:35 - 14:50 **COCIR perspective on BSS article 60 : how can manufacturers and medical physicists best work together to optimize patient care**  
Sjirk BOON, *Netherlands*
- 14:50 - 15:00 **Panel discussion**

Thursday 23 August 2018

**Scientific Session (RT-Brachytherapy) Oral Presentations**

**Auditorium 4**

Chairs:

Charlotte THORNBERG, *Sweden*

Kari TANDERUP, *Denmark*

- **Source tracking with in vivo dosimetry for brachytherapy**  
Jacob JOHANSEN, *Denmark*
- **CT quantification of holmium distribution for absorbed dose calculation in a context of microbrachytherapy**  
Jonathan TRANEL, *France*
- **An innovative gynecological HDR brachytherapy applicator system for treatment delivery and real time verification**  
Mauro CARRARA, *Italy*
- **IVD methodology in APBI brachytherapy**  
Sara PINTO, *Portugal*
- **Prostate HDR brachytherapy: the experience of the team matters**  
Mauro CARRARA, *Italy*
- **Diffusing Alpha-emitters Radiation Therapy (DaRT): template based treatment planning technique for brachytherapy of squamous cell skin cancer**  
Giacomo FELICIANI, *Italy*
- **A study on the Consistency of Treatment Planning and Delivery for Endometrial Cancer treatments with Multi-Lumen Cylinders for High Dose Rate Brachytherapy**  
Nicolae DUMITRU, *United States*

Thursday 23 August 2018

Scientific Session (NM-General) Invited talk, Oral Presentations

Auditorium 4

Chairs:

Adriaan LAMMERTSMA , *Netherlands*

Bernhard SATTLER, *Germany*

16:30 - 16:50

**The Case for Quantitative Imaging in Nuclear Medicine**

Adriaan LAMMERTSMA , *Netherlands*

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**Creation of specific normal databases for perfusion quantification of low-dose myocardial SPECT studies**

Michela LECCHI, *Italy*

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**IS CZT-SPECT DEDICATED SYSTEM FOR MYOCARDIAL IMAGING RELIABLE IN ASSESSMENT OF LEFT VENTRICULAR VOLUMES AS COMPARED TO ECHOCARDIOGRAPHY?**

Jehangir KHAN, *Sweden*

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**Validation of left ventricular ejection fraction with gated IQ-SPECT myocardial perfusion imaging**

Roberta MATHEOUD, *Italy*

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**Quantitative analysis of ventilation SPECT applied to Krypton and Technegas**

Robin DE NIJS, *Denmark*

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**Validation of a Radio-Guided Surgery technique based on beta- radiation: test on ex-vivo specimens.**

Elena SOLFAROLI CAMILLOCCI, *Italy*

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**A 3D-printed phantom study for quantitative <sup>99m</sup>Tc-MAA SPECT/CT imaging and dosimetry in <sup>90</sup>Y radioembolization**

Sara UNGANIA, *Italy*

## Auditorium 5 Thursday 23 August 2018

Thursday 23 August 2018

### Refresher course: Clinical alpha-particle dosimetry: What do we do and what should we do?

Auditorium 5

	Chairs: Manuel BARDIES, <i>France</i>
08:00 - 08:05	<b>Introduction</b> Manuel BARDIES, <i>France</i>
08:05 - 08:27	<b>Clinical alpha-particle dosimetry</b> Stig PALM, <i>Sweden</i>
08:28 - 08:50	<b>How to calibrate Gamma camera for 223Ra dosimetry</b> Marta CREMONESI, <i>Italy</i>

Thursday 23 August 2018

### Lunch Break, Lunch Symposia, Exhibition and Posters

Auditorium 5

Thursday 23 August 2018

### Joint session EFOMP-EFRS Teamwork of Medical Physicists and Radiographers

Auditorium 5

	Chairs: Efi KOUTSOUELI, <i>Greece</i> Charlotte GRAUNGAARD FALKVARD, <i>Denmark</i>
14:00 - 14:05	<b>In many countries Radiographers and Medical Physicists work together in teams, especially in areas concerning quality control and radiation protection. This session will highlight the roles of the two professions in this area in Europe</b> Efi KOUTSOUELI, <i>Greece</i>
14:05 - 14:20	<b>The roles of radiographers in medical imaging and radiotherapy in Europe</b> Ainars BAJINSKIS, <i>Latvia</i>
14:20 - 14:35	<b>Safety and Quality in the Medical Imaging Department</b> Ad MAAS, <i>Netherlands</i>
14:35 - 14:50	<b>Teamwork in daily practice - The radiographer's perspective</b> Maeve DOYLE, <i>Ireland</i>
14:50 - 15:00	<b>Panel Discussion</b>

Thursday 23 August 2018

**Special Focus Educational Techniques**

**Auditorium 5**

Chairs:

Markus BUCHGEISTER, *Germany*

Slavik TABAKOV, *United Kingdom*

16:30 - 16:50

**Modern educational techniques in medical physics**

Markus BUCHGEISTER, *Germany*

16:50 - 17:10

**e-Learning in Medical Physics**

Slavik TABAKOV, *United Kingdom*

17:10 - 17:30

**Teaching of medical physics to radiology residents**

Madan REHANI, *United States*

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**TRAIN THE TRAINER WORKSHOP ON MEDICAL PHYSICS SUPPORT FOR NUCLEAR OR RADIOLOGICAL EMERGENCIES**

Nur KODALOGLU, *Turkey*

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**An International Master of Advanced Studies in Medical Physics: an appraisal after 5 cycles**

Renata LONGO, *Italy*

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**Education and training for leadership in Medical Physics: an EFOMP-EUTEMPE collaboration**

Carmel J. CARUANA, *Malta*

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**Improvements and Challenges in Postgraduate Radiation Protection Training for Dental Staff**

Graham HART, *United Kingdom*

## Auditorium 1 Friday 24 August 2018

Friday 24 August 2018

### Refresher course: Motion management: from imaging to treatment and viceversa

Auditorium 1

	Chairs: Paweł Franciszek KUKOŁOWICZ, <i>Poland</i>
08:00 - 08:05	<b>Introduction</b> Paweł Franciszek KUKOŁOWICZ, <i>Poland</i>
08:05 - 08:27	<b>Active motion management strategies: breath hold, gating, tracking</b> Marianne AZNAR, <i>United Kingdom</i>
08:28 - 08:50	<b>Motion management</b> Jan Jakob SONKE, <i>Netherlands</i>

Friday 24 August 2018

### Scientific Session (RT) Invited talk, Oral Presentations

Auditorium 1

	Chairs: Paweł Franciszek KUKOŁOWICZ, <i>Poland</i> Gianfranco LOI, <i>Italy</i>
09:00 - 09:20	<b>Modern radiotherapy of localized prostate cancer</b> Paweł Franciszek KUKOŁOWICZ, <i>Poland</i>
-	<b>Intrafractional imaging during volumetric modulated arc therapy (VMAT) prostate treatment in combination with Gold Anchor fiducials</b> Ingun STÅHL, <i>Sweden</i>
-	<b>Cone-beam CT intensity correction for adaptive radiotherapy of the prostate using deep learning</b> Christopher KURZ, <i>Germany</i>
-	<b>Influence of SBRT fractionation on the behavior of TCP and NTCP for prostate cancer</b> Evgeniia SUKHIKH, <i>Russian Federation</i>
-	<b>Calcifications in lung cancer patients: can they be used as surrogate for overall survival predictions?</b> Frank BREWSTER, <i>United Kingdom</i>
-	<b>Adaptation of external beam radiotherapy through daily cone beam CT monitoring for cervical cancer patients</b> Kari TANDERUP, <i>Denmark</i>
-	<b>Experimental study of dynamic dose interplay for flattening filter free beams in VMAT SBRT lung treatments</b> Emmily SANDRINI, <i>Brazil</i>
-	<b>An investigation of possible radiophysical causes of recurrence for non-melanoma facial skin cancer treated with superficial X-rays</b> Jens M. EDMUND, <i>Denmark</i>

Friday 24 August 2018

**Scientific Session RT-Dosimetry**

**Auditorium 1**

Chairs:

Yolanda PREZADO, *France*

Brendan MCCLEAN, *Ireland*

11:00 - 11:20

**New approaches in radiotherapy: spatial fractionation of the dose**

Yolanda PREZADO, *France*

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**A multi-center dosimetry study to evaluate imaging dose from Elekta XVI and Varian OBI kV-Cone Beam CT systems to Cardiovascular Implantable Electronic Devices (CIEDs)**

Hossein ASLIAN, *Italy*

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**Influence of treatment couch in the secondary MU calculation for VMAT prostate treatments**

Eva Maria AMBROA REY, *Spain*

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**Influence of extrafocal dose in the out-of-field dose distribution in a paediatric anthropomorphic phantom, irradiated with a FFF beam and a 120 HD MLC - Monte Carlo simulations and Gafchromic EBT3 dose distribution**

Firass GHAREEB, *Portugal*

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**Error sensitivity of forward- and back-projection EPID dosimetry for VMAT treatment of the prostate**

James BEDFORD, *United Kingdom*

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**Output factor measurement in high-dose-per-pulse electron beams**

Maria PIMPINELLA, *Italy*

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**EBT3 radiochromic film dosimetry in kV x-ray radiation therapy**

Eleni PRENTOU, *Greece*

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**A comparison of dosimetry codes practice for FFF beams: IAEA TRS-398 and IPSM 1990**

Francisco CUTANDA, *United Kingdom*

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**Big data in radiochromic film dosimetry**

Ignasi MENDEZ, *Slovenia*

Friday 24 August 2018

**Lunch Break, Exhibition and Posters. 12.30 - 13.30 Lunch Symposium organised by VisionRT: Surface Guided Radiation Therapy (SGRT) – Evidence and Accuracy of a New Paradigm**

**Auditorium 1**



Friday 24 August 2018

**Joint session EFOMP-IAEA - IAEA projects in Medical Physics**

**Auditorium 1**

	Chairs: Marco BRAMBILLA, <i>Italy</i>
14:00 - 14:05	<b>To illustrate the progress and achievements of the IAEA projects in the field of Medical Physics, in which EFOMP has been involved</b> Marco BRAMBILLA, <i>Italy</i>
14:05 - 14:20	<b>Patient radiation exposure monitoring in medical imaging</b> Jenia VASSILEVA, <i>Austria</i>
14:20 - 14:35	<b>Dosimetry in radiopharmaceutical therapy</b> Manuel BARDIES, <i>France</i>
14:35 - 14:50	<b>Guidelines for medical physics staffing requirements in diagnostic imaging and radionuclide therapy</b> Gian Luca POLI, <i>Austria</i>
14:50 - 15:00	<b>Panel discussion</b>

Friday 24 August 2018

**Scientific Session (RT-Technology) Oral Presentations**

**Auditorium 1**

	Chairs: Uulke VAN DER HEIDE, <i>Netherlands</i> Iuliana TOMA-DASU, <i>Sweden</i>
-	<b>Transfer of minibeam radiation therapy into a cost-effective equipment: a proof of concept</b> Yolanda PREZADO, <i>France</i>
-	<b>Passive ion beam modulation techniques for particle therapy raster scanning facilities</b> Toke PRINTZ RINGBÆK, <i>Germany</i>
-	<b>4D-CBCT streak reduction by simulated undersampling from 3D reconstruction</b> Kasper Rørdam JENSEN, <i>Denmark</i>
-	<b>Novel inorganic scintillation detector system for real-time treatment verification during brachytherapy</b> Gustavo KERTZSCHER, <i>United States</i>
-	<b>Influence of the degree of the geometric uncertainty on the quality of single isocenter VMAT multiple target treatments</b> Georgia PRENTOU, <i>Greece</i>
-	<b>Kilovoltage rotational radiotherapy with the MariX/BriXs source for partial breast irradiation</b> Giovanni METTIVIER, <i>Italy</i>

Friday 24 August 2018

**ECMP welcomes Germany - Ion beam therapy**

**Auditorium 1**

Chairs:

Markus BUCHGEISTER, *Germany*

Daniela THORWARTH, *Germany*

16:30 - 17:00

**Novel developments in ion beam dosimetry**

Steffen GREILICH, *Germany*

17:00 - 17:30

**Dual energy CT for improved range prediction in proton therapy: What can we gain?**

Christian RICHTER, *Germany*

17:30 - 18:00

**Ion-based imaging and in-vivo range verification in ion beam therapy: status and perspectives**

Katia PARODI, *Germany*

## Auditorium 3 Friday 24 August 2018

Friday 24 August 2018

### Refresher course: Image quality in CT: From physical measurements to model observers

Auditorium 3

	Chairs: Sue EDYVEAN, <i>United Kingdom</i>
08:00 - 08:05	<b>Introduction</b> Sue EDYVEAN, <i>United Kingdom</i>
08:05 - 08:27	<b>Image quality in CT: from physical measurements to model observers</b> Francis VERDUN, <i>Switzerland</i>
08:28 - 08:50	<b>Model observers applied to quality control in Computed Tomography</b> Irene HERNANDEZ GIRON, <i>Netherlands</i>

Friday 24 August 2018

### Scientific Session (DR-CT) Invited talk, Oral Presentations

Auditorium 3

	Chairs: Robert BUJILA, <i>Sweden</i> Eleni Theano SAMARA, <i>Switzerland</i>
09:00 - 09:20	<b>Impact of Scan Settings on Automatic Tube Current Modulation in CT</b> Robert BUJILA, <i>Sweden</i>
-	<b>Secondary Analysis of Canada's National Computed Tomography (CT) Survey Data: Digging Deeper on DRLs</b> Graeme WARDLAW, <i>Canada</i>
-	<b>Current Pediatric Radiation Doses from a Computed Tomography (CT) Dose Registry</b> Philip W CHU, <i>United States</i>
-	<b>The LUMIC Challenge: How accurate are registration algorithms in registering lung CT images for subtraction?</b> Dagmar GROB, <i>Netherlands</i>
-	<b>Adult Radiation Doses for Computed Tomography (CT) from an International Dose Registry</b> Sophronia YU, <i>United States</i>
-	<b>Organ dose estimate in CT exams: inter-comparison of four commercial software and characterization of the main CT procedures used in ASST Niguarda (Milan, Italy)</b> Alberto TORRESIN, <i>Italy</i>
-	<b>Evaluation of two model based iterative reconstruction algorithms in computed tomography</b> Nadia OBERHOFER, <i>Italy</i>

Friday 24 August 2018

**Scientific Session (DR-CT) Invited talk, Oral Presentations**

**Auditorium 3**

Chairs:

John DAMILAKIS, *Greece*

Mahadevappa MAHESH, *United States*

11:00 - 11:20

**Why is Dual Energy CT (DECT) still not used widely in clinics?**

Mahadevappa MAHESH, *United States*

-

**Evaluation of bone and bone marrow doses in multi-slice CT thorax examinations of children and young adolescents**

John STRATAKIS, *Greece*

-

**Noise Equivalent Number of Quanta (NEQ): a tool for choosing the optimal reconstruction algorithm in Computed Tomography (CT)**

Vittorio DI TRAPANI, *Italy*

-

**Cluster analysis methods applied to an archive of CT patient dose data**

Osvaldo RAMPADO, *Italy*

-

**A simple method for low contrast detectability, image quality and dose optimization with CT iterative reconstruction algorithms and model observers**

Luca BELLESI, *Switzerland*

-

**Quantification of low contrast resolution and noise of dual energy CT using software for automated quality control**

Bartosz PAWALOWSKI, *Poland*

-

**Impact of scanner type and acquisition parameters on the accuracy of displayed computed tomography dose index**

Luca Leandro VIGNA, *Italy*

Friday 24 August 2018

**Lunch Break, Lunch Symposia, Exhibition and Posters. 12.30 - 13.30**

**Lunch symposium organised by Sun Nuclear: Integrated and Innovative RT QA**

**Auditorium 3**

Friday 24 August 2018

**Joint session EFOMP-EANM Quantitative Nuclear Medicine**

**Auditorium 3**

	<b>Chairs:</b> Søren HOLM , <i>Denmark</i>
14:00 - 14:05	<b>The role of quantitative nuclear medicine as a diagnostic or prognostic tool and in therapy monitoring</b> Søren HOLM , <i>Denmark</i>
14:05 - 14:20	<b>EANM/EARL harmonization strategies in PET quantification: from daily practice to multicentre oncological studies</b> Bernhard SATTLER, <i>Germany</i>
14:20 - 14:35	<b>SPECT/CT quantitative reconstruction techniques</b> Klaus BACHER , <i>Belgium</i>
14:35 - 14:50	<b>Recent developments in time-of-flight PET</b> Stefaan VANDENBERGHE , <i>Belgium</i>
14:50 - 15:00	<b>Panel discussion</b>

Friday 24 August 2018

**Scientific Session (DR-General) Oral Presentations**

**Auditorium 3**

	<b>Chairs:</b> Irene HERNANDEZ GIRON, <i>Netherlands</i> Magnus BÅTH, <i>Sweden</i>
-	<b>Patient dosimetry during cone beam CT in dental implant planning</b> Sofia KOTTOU, <i>Greece</i>
-	<b>Calculation of the patient size for abdominal radiography in terms of Water Equivalent Diameter</b> An DEDULLE, <i>Belgium</i>
-	<b>Dosimetric evaluation of the O-arm® imaging system</b> Marta SANS MERCE, <i>Switzerland</i>
-	<b>First experimental validation of phase-attenuation hybrid X-ray imaging</b> Adriano CONTILLO, <i>Italy</i>
-	<b>Normal Ranges of Cardiac Imaging Radiomic Metrics in Healthy Volunteers 24 hours post Ultra-small Particles of Iron Oxide (USPIO) Administration</b> Polly DARBY, <i>United Kingdom</i>
-	<b>Evaluation of the needs for PPV measurement from the legal point of view</b> Agnieszka KUHCINSKA, <i>Poland</i>

Chairs:

Hilde BOSMANS, *Belgium*

Eleni Theano SAMARA, *Switzerland*

16:30 - 16:50

**Annual Quality Assurance testing of radiological equipment: why is this an important task of the MPE?**

Hilde BOSMANS, *Belgium*

-

**A single phantom, a single statistical method, a single figure of merit for all x-ray equipment**

Nicoletta PARUCCINI, *Italy*

-

**A Monte Carlo investigation of dose width product (DWP) as a dose index for CBCT dosimetry**

Abdullah ABUHAIMED, *Saudi Arabia*

-

**Implementation and in-phantom testing of a free Monte Carlo software for CT dose calculation**

Alessio BOSCHINI, *Italy*

-

**An Experience with Open Source Machine Learning Software DeepMedic**

Teemu MÄKELÄ, *Finland*

-

**Impact of tube potential and beam width of CBCT scans on size-specific dose estimate (SSDE) factors**

Abdullah ABUHAIMED, *Saudi Arabia*

-

**Development of Breast Tumours models database**

Kristina BLIZNAKOVA, *Bulgaria*

## Auditorium 4 Friday 24 August 2018

Friday 24 August 2018

### Refresher course: The future of personalised radiotherapy from a radiobiological perspective

Auditorium 4

	Chairs: Lidia STRIGARI, <i>Italy</i>
08:00 - 08:05	<b>Introduction</b> Lidia STRIGARI, <i>Italy</i>
08:05 - 08:27	<b>Radiobiological parameters that influence treatment outcome in radiotherapy</b> Loredana MARCU, <i>Romania</i>
08:28 - 08:50	<b>Radiobiological model-based treatment individualisation in radiotherapy</b> Iuliana TOMA-DASU, <i>Sweden</i>

Friday 24 August 2018

### Scientific Session (NM-PET) Invited talk, Oral Presentation

Auditorium 4

	Chairs: Søren HOLM, <i>Denmark</i> Gian Luca POLI, <i>Austria</i>
09:00 - 09:20	<b>Future trends of PET/CT technology</b> Søren HOLM, <i>Denmark</i>
-	<b>Preparing data for multiparametric PET/MRI: Influence of PET point spread function modelling and EPI distortion correction on the spatial correlation of 18F-FDG-PET uptake and diffusion weighted MRI in head/neck cancer</b> Adam Espe HANSEN, <i>Denmark</i>
-	<b>Validation framework for automated determination of the optimal number of clusters in [F-18]FET-PET brain images</b> Elham YOUSEFZADEH, <i>Germany</i>
-	<b>Application of new algorithms in PET image reconstruction: preliminary results</b> Roberta MATHEOUD, <i>Italy</i>
-	<b>Measuring, monitoring and reporting effective dose on hybrid equipment: results and challenges to integrate with MDCT in a large population study</b> giovanni TOSI, <i>Italy</i>
-	<b>Impact of tracer activity reduction on PET radiomic features in pediatric 18F-FDG-PET/MRI examinations</b> Marco BRANCHINI, <i>Italy</i>
-	<b>Underestimation of 68Ga PET/CT Quantification caused by Activity Overestimation using Default Calibrator Settings</b> Tom SANDERSON, <i>United Kingdom</i>

Friday 24 August 2018

**Scientific Session (NM-RT) Invited talk, Oral Presentation**

**Auditorium 4**

Chairs:  
Carlo CHIESA, *Italy*  
Stig PALM, *Sweden*

11:00 - 11:20

**Dosimetric planning of liver radioembolization with 90Y microspheres: methodological problems and clinical achievements**

Carlo CHIESA, *Italy*

- **Vandetanib may act as a radiosensitiser for 177Lu-octreotate treatment of medullary thyroid cancer**  
Viktor SANDBLOM, *Sweden*
- **Optimization of quantitative 99mTc-MAA SPECT/CT imaging for 90Y radioembolization: a 3D-printed phantom study**  
Sara UNGANIA, *Italy*
- **A1M is a potential kidney protector in 177Lu-octreotate treatment of neuroendocrine tumours**  
Charlotte ANDERSSON, *Sweden*
- **Development of a realistic geometry model for cellular dosimetry of different therapeutic isotopes used in internal radiotherapy**  
Nora HOCINE, *France*
- **Biological effects evaluation in peripheral blood lymphocytes from patients undergoing Radium-223 chloride (223RaCl<sub>2</sub>) therapy**  
Lidia STRIGARI, *Italy*
- **Advanced personalised 3D dosimetry for Peptide Receptor Radionuclide Therapy based on Monte Carlo method**  
Salvatore BERENATO, *United Kingdom*
- **Myelosuppression in Non-Hodgkin Lymphoma Patients Treated with 177Lu-lilotomab satetraxetan Can Be Predicted by a Model with Red Marrow Absorbed Dose as the Only Parameter**  
Johan BLAKKISRUD, *Norway*
- **PET-TC post therapy dosimetry in radioembolization with resin 90Y microspheres: comparison with pre treatment SPECT-TC 99mTc-MAA results**  
Elisa RICHETTA, *Italy*

Friday 24 August 2018

**Lunch Break, Exhibition and Posters. 12.30 - 13.30 Lunch Symposium organised by Bracco: NEXO[DOSE]: a journey towards radiation dose optimization**

**Auditorium 4**



Friday 24 August 2018

**Joint session EFOMP-ESMRMB The expanding role of MR in radiation therapy**

**Auditorium 4**

Chairs:

David LURIE, *United Kingdom*

14:00 - 14:05

**Introduction**

David LURIE, *United Kingdom*

14:05 - 14:20

**Benefits of MRI for Radiation Therapy**

Heinz-Peter SCHLEMMER, *Germany*

14:20 - 14:35

**MRI for radiotherapy treatment planning**

Uulke VAN DER HEIDE, *Netherlands*

14:35 - 14:50

**New Technologies for MR guided Radiotherapy**

Cornelius van den BERG, *Netherlands*

14:50 - 15:00

**Panel discussion**

Friday 24 August 2018

**Scientific Session Radioprotection, Oral Presentations**

**Auditorium 4**

Chairs:

Slavik TABAKOV, *United Kingdom*

Anja ALMEN, *Sweden*

-

**Internal contamination monitoring of workers in a nuclear medicine department: results of one year routine monitoring**

Roberta MATHEOUD, *Italy*

-

**Age and gender specific radiation risk models as an alternative to effective dose**

Martin ANDERSSON, *Sweden*

-

**DosReg - a national web-based tool to support the optimization of radiological protocols and examinations**

Henrik BÅVENÄS, *Sweden*

-

**Recent update of typical effective doses received by patients at diagnostic and interventional radiology procedures and its impact on assessment of collective effective dose to population in Bulgaria**

Asen DIMOV, *Bulgaria*

-

**Assessment of Radiation Exposure in a Newly Formed Nuclear Medicine Department**

Panayiotis HADJITHEODOROU, *Cyprus*

-

**An Excel-based tool for improving patient dose data reporting and analysis**

Jenia VASSILEVA, *Austria*

Chairs:

Colin MARTIN, *United Kingdom*

Jenia VASSILEVA, *Austria*

16:30 - 16:50

**Implementation and practical experience with the new EURATOM Directive occupational dose limit to the lens of the eye: from 150 mSv to 50 mSv per year**

Colin MARTIN, *United Kingdom*

-

**Dose monitoring for physicians' lens in Catheterization Lab:intercenter survey**

Luca BERNARDI, *Italy*

-

**Eye lens dose monitoring in Interventional Radiology**

Paolo SCALCHI, *Italy*

-

**Evaluation of a new personal radiation protection device for the operator's head during X-ray diagnostics and interventions**

Maria LARSSON, *Sweden*

-

**The dose to the lens of the eye for the heart team performing transcatheter aortic valve implementation (TAVI): Is there any concern for cataract?**

Angeliki KARAMBATSAKIDOU, *Sweden*

-

**Analysis of Radiation Protection of breastfed babies when mother is undergoing diagnostic nuclear medicine examination (F18-FDG PET, Tc-99m MIBI).**

Agnieszka KUHCINSKA, *Poland*

-

**Establishing a unified system for logging radiation incidents in an international healthcare services organisation**

Katia KATSARI, *Netherlands*

-

**Occupational radiation doses during interventional radiology residents training**

William JARAMILLO GARZÓN, *Colombia*

## Auditorium 5 Friday 24 August 2018

Friday 24 August 2018

### Refresher course: Quantitative molecular imaging : can we trust the SUV?

Auditorium 5

	Chairs: Marco BRAMBILLA, <i>Italy</i>
08:00 - 08:05	<b>Introduction</b> Marco BRAMBILLA, <i>Italy</i>
08:05 - 08:50	<b>Quantitative molecular imaging: can we trust the SUV?</b> Ronald BOELLAARD, <i>Netherlands</i>

Friday 24 August 2018

### Special Focus Professional Matters

Auditorium 5

	Chairs: Ad MAAS, <i>Netherlands</i> Carmel J. CARUANA, <i>Malta</i>
11:00 - 11:20	<b>IOMP project 'History of Medical Physics' - Objectives and First Results</b> Slavik TABAKOV, <i>United Kingdom</i>
11:20 - 11:40	<b>National Registration Schemes for Medical Physicists in Europe. An Overview</b> Ad MAAS, <i>Netherlands</i>
11:40 - 12:00	<b>Strategic leadership in medical physics - a to-do list</b> Carmel J. CARUANA, <i>Malta</i>
-	<b>The European Federation of Medical Physics algorithm for the evaluation of minimum staffing level of Medical Physics Experts: results of the Italian experience.</b> Roberta MATHEOUD, <i>Italy</i>
-	<b>The CBCT protocol of EFOMP-ESTRO-IAEA is alive: update by EURADOS and DIN</b> Annalisa TRIANNI, <i>Italy</i>
-	<b>Contribution of the medical physicist to the Italian consensus document on management of patients with cardiac implantable devices (CIED) undergoing radiotherapy and future development from AIFM working group.</b> Mara SEVERGNINI, <i>Italy</i>

Friday 24 August 2018

### Lunch Break, Lunch Symposia, Exhibition and Posters

Auditorium 5

## Auditorium 1 Saturday 25 August 2018

Saturday 25 August 2018

### Refresher course: Dose painting: Why and how

Auditorium 1

	Chairs: Brendan MCCLEAN, <i>Ireland</i>
08:00 - 08:05	<b>Introduction</b> Brendan MCCLEAN, <i>Ireland</i>
08:05 - 08:27	<b>The rationale behind dose painting strategies currently tested in clinical trials</b> Ivan VOGELIUS, <i>Denmark</i>
08:28 - 08:50	<b>Quality assurance issues pertaining to non-uniform dose prescription situations</b> Daniela THORWARTH, <i>Germany</i>

Saturday 25 August 2018

### Scientific Session (RT - QA - QC) Invited talk, Oral Presentations

Auditorium 1

	Chairs: Crister CEBERG, <i>Sweden</i> Michele STASI, <i>Italy</i>
09:00 - 09:20	<b>Automated treatment planning and quality assurance</b> Crister CEBERG, <i>Sweden</i>
-	<b>Establishing acceptance criteria for VMAT quality assurance (QA) in a new radiotherapy centre</b> Inés FLORES-CACHO, <i>Spain</i>
-	<b>QUALITY ASSURANCE AND RISK MANAGEMENT FOR INTRAOPERATIVE ELECTRON RADIOTHERAPY ACCELERATORS - RECOMMENDATIONS BY THE POLISH ASSOCIATION OF MEDICAL PHYSICS</b> Marta KRUSZYNA-MOCHALSKA, <i>Poland</i>
-	<b>Patient-specific quality assurance based on electronic portal imaging devices via artificial neural networks</b> Frédéric CHATRIE, <i>France</i>
-	<b>The Output Factor Measurements of CyberKnife System using Various Detectors</b> Canan KOKSAL, <i>Turkey</i>
-	<b>Verification of Field Junctions in Craniospinal Proton Radiotherapy</b> Bartłomiej SADOWSKI, <i>Poland</i>
-	<b>Monte Carlo as quality control tool of machine performance and treatment planning system, is it a luxury or a necessity ?</b> Husein ALHAMADA, <i>Belgium</i>
-	<b>Comparison between four routine control devices detecting photon beam energy changes</b> Miguel JIMÉNEZ MELGUIZO, <i>Spain</i>

Saturday 25 August 2018

**Joint session EFOMP-ESR Teaming up for medical radiation protection**

**Auditorium 1**

Chairs:  
John DAMILAKIS, *Greece*

- 11:00 - 11:05 **A paradigm shift is occurring in the establishment of Diagnostic Reference Levels: from anatomy to clinical indication in adults and from age to weight in children. The impact of these change will be illustrated in the context of a multidisciplinary teamworking between Radiologists and Medical Physicists**  
John DAMILAKIS, *Greece*
- 11:05 - 11:20 **Implementing Clinical Imaging Guidelines**  
Guy FRIJA, *France*
- 11:20 - 11:35 **Introduction and preliminary results of the EUCLID European Project**  
Virginia TSAPAKI, *Greece*
- 11:35 - 11:50 **Perspective on paediatric imaging diagnostic reference levels (DRLs)**  
Claudio GRANATA, *Italy*
- 11:50 - 12:00 **Panel discussion**

Saturday 25 August 2018

**Plenary Session**

**Auditorium 1**

Chairs:  
Peter SHARP, *United Kingdom*

- 12:00 - 12:30 **Deep Learning in Computed Tomography**  
Marc KACHELRIEß, *Germany*

Saturday 25 August 2018

**Award of the best Oral Presentation and Poster**

**Auditorium 1**

Saturday 25 August 2018

**Closing sessions and Ceremony**

**Auditorium 1**

## Auditorium 3 Saturday 25 August 2018

Saturday 25 August 2018

### Refresher course: Breast Tomosynthesis. Technology, quality controls and dosimetry

Auditorium 3

	Chairs: Magnus BÅTH, <i>Sweden</i>
08:00 - 08:05	<b>Introduction</b> Magnus BÅTH, <i>Sweden</i>
08:05 - 08:27	<b>Physics, technology and QC of breast tomosynthesis</b> Anders TINGBERG, <i>Sweden</i>
08:28 - 08:50	<b>Breast Tomosynthesis: Technology, quality control, and dosimetry</b> Ioannis SECHOPOULOS, <i>Netherlands</i>

Saturday 25 August 2018

### Scientific Session (DR-Mammo) Invited talk, Oral Presentations

Auditorium 3

	Chairs: Ioannis SECHOPOULOS, <i>Netherlands</i> Paolo RUSSO, <i>Italy</i>
09:00 - 09:20	<b>Dosimetry in breast computed tomography</b> Paolo RUSSO, <i>Italy</i>
-	<b>Digital breast tomosynthesis: flat panel and photon counting detectors comparison</b> Alessandro LORIA, <i>Italy</i>
-	<b>3D dose distribution in two clinical digital breast tomosynthesis units: a phantom study</b> Antonio SARNO, <i>Italy</i>
-	<b>Monochromatic phase-contrast breast CT: a phantom-based image comparison with a clinical system</b> Christian FEDON, <i>Netherlands</i>
-	<b>Channelized Hotelling Observer performance in acquired mammographic images of an anthropomorphic breast phantom</b> Christiana BALTA, <i>Netherlands</i>
-	<b>A virtual study to determine the potential of dual-energy imaging for detectability of microcalcifications in breast screening</b> Galya GOSPODINOVA, <i>Bulgaria</i>
-	<b>Calculation of Breast Dose with The Regression Model</b> Ayşegül YURT, <i>Turkey</i>
-	<b>Computer-based Platform for Phase Contrast Breast Imaging</b> Kristina BLIZNAKOVA, <i>Bulgaria</i>
-	<b>Experimental validation of a Monte Carlo code for internal breast dosimetry in mammography</b> Christian FEDON, <i>Netherlands</i>

Saturday 25 August 2018

**Joint Session EFOMP-EUSOMII, The amazing world of omics**

**Auditorium 3**

Chairs:

Annalisa TRIANNI, *Italy*

- |               |  |
|---------------|--|
| 11:00 - 11:05 | <b>Introduction - Artificial Intelligence in Medical Imaging: why should a medical physicist care?</b><br>Annalisa TRIANNI, <i>Italy</i> |
| 11:05 - 11:20 | <b>Basics of deep learning</b><br>Jonas TEUWEN, <i>Netherlands</i>   |
| 11:20 - 11:35 | <b>From Image Quality to Care Outcome</b><br>Mika KORTESNIEMI, <i>Finland</i>  |
| 11:35 - 11:50 | <b>Imaging Biobanks</b><br>Emanuele NERI, <i>Italy</i>   |
| 11:50 - 12:00 | <b>Panel Discussion</b>  |

## Auditorium 4 Saturday 25 August 2018

Saturday 25 August 2018

### Refresher course: Fundamental on radiomics

Auditorium 4

	Chairs: Kari TANDERUP, <i>Denmark</i>
08:00 - 08:05	<b>Introduction</b> Kari TANDERUP, <i>Denmark</i>
08:05 - 08:27	<b>Statistical methods for analysis of multidimensional imaging data</b> Koen VAN LEEMPUT, <i>Denmark</i>
08:28 - 08:50	<b>Radiomics: transforming standard imaging into mineable data related to biology</b> Janita VAN TIMMEREN, <i>Netherlands</i>

Saturday 25 August 2018

### Scientific Session (NIR) Invited talk, Oral Presentations

Auditorium 4

	Chairs: Ayakkanu MANIVANNAN, <i>United Kingdom</i> Alex REM, <i>Netherlands</i>
11:00 - 11:20	<b>A review of medical laser accidents: A simple burn to death by laser.</b> Ayakkanu MANIVANNAN, <i>United Kingdom</i>
-	<b>Influence of Nonionizing Millimeter Electromagnetic Radiation on Tumor and Healthy DNA</b> Vitali KALANTARYAN, <i>Armenia</i>
-	<b>Handheld MED testers: An inter-comparison to inform requirements for acceptance testing and calibration</b> Michael MANLEY, <i>Ireland</i>
-	<b>Development of a quality assurance program for B-mode ultrasound equipment: one - year experience</b> Sotiria TRIANTOPOULOU, <i>Greece</i>
-	<b>DEVELOPMENT OF A FLOWCHARTS TOOL FOR THE RISK ASSESSMENT OF OCCUPATIONAL EXPOSURE TO ELECTROMAGNETIC FIELDS</b> George GOURZOULIDIS, <i>Greece</i>
-	<b>Validation of probabilistic tracking method in the reconstruction of thalamocortical and optical radiation tracts: comparison between reconstructed tracts and evoked potential recorded in epileptic patients.</b> Stefania NICI, <i>Italy</i>



## Auditorium 5 Saturday 25 August 2018

Saturday 25 August 2018

**Refresher course: Safety of Laser and electrosurgical units in healthcare**

**Auditorium 5**

Chairs:

Maurice JANSSEN, *Netherlands*

08:00 - 08:05

**Introduction**

Maurice JANSSEN, *Netherlands*

08:05 - 08:27

**Quality and Safety Management of Medical Lasers**

Alex REM, *Netherlands*

08:28 - 08:50

**Safe use of electrosurgery in healthcare**

Christiaan VAN SWOL, *Netherlands*