

Foundations  
right,  
future bright  
**BHPA 2025**



7-8 February  
Louvain-La-Neuve

<https://symposium.bhpa.eu/>

#BHPA2025



Clinique  
SAINT-JEAN



Friday 7th February				
	Theatre	Foyer Royal	Foyer du Lac	Hocaille
09h00 - 10h30	<p>10' Opening by organising committee</p> <p><i>The era of automation in medical physics: right foundations for more secure and easy workflows</i></p> <ul style="list-style-type: none"> <li>30' <b>Automation and Human Performance: Insights from an Aviation Perspective</b> - AD Schmitz, EUROCONTROL</li> <li>30' <b>AI in medical physics: foundations that matter</b> - A. Dekker, MAASTRO</li> </ul> <p>10' <b>Automation in Radiation Oncology: We've Taken Off and Are Gaining Altitude</b>, D. Callens, KULeuven</p> <ul style="list-style-type: none"> <li>10' <b>Varian</b></li> </ul> <p>Chairs: G. De Kerf, J. Dhont</p>	<p><b>INVITED SPEAKERS</b></p> <p><b>SPONSORED TALK</b></p> <p><b>YP YOUNG PHYSICIST</b></p>		
10h30	Coffee Break			
11h00 - 12h30	<p><i>Advanced treatment plan optimisation and delivery techniques in RT</i></p> <p>7' <b>SNAP - Automated Multi-Patient VMAT Prostate Planning Using Fine-Tuning Process Through Dynamic Adjustment of Optimization Parameters</b>, H. Cavus, Jessa Ziekenhuis</p> <p>7' <b>SNAP - The Spine SRS module (Elements TPS, Brainlab) for treatment of spinal metastasis in stereotactic conditions</b>, V. Baltieri, CHU Charleroi</p> <p>7' <b>SNAP - How low can we go?</b> K. Leysen - AZ Turnhout</p> <p>10' <b>First validation/commissioning of the novel RapidArc Dynamic technique for breast radiotherapy</b>, T. Reynders, UZLeuven</p> <p>15' <b>Initial follow up of mechanical QC test for RapidArc Dynamic</b>, E. Van Riet, UZLeuven <b>YP</b></p> <p>15' <b>Evaluation of robust planning on the GTV in lung stereotactic body radiation therapy</b>, N. Piecharski, CHU Liege <b>YP</b></p> <p>15' <b>Fast deliverable proton therapy for lung cancer using 3D-printed range modulators: evaluating beam time efficiency and motion mitigation</b>, J. Beyers, KU Leuven <b>YP</b></p> <ul style="list-style-type: none"> <li>10' <b>RaySearch, How RayCare integration can transform C-Arm Linac capabilities</b>, G. De Kerf</li> </ul> <p>Chairs: W. Crijs, B. Vanderstraeten</p>	<p><i>New applications and developments in radiology</i></p> <p>15' <b>Modelling image-specific microcalcification clusters for mammographic imaging</b>, A. Van Camp, KULeuven <b>YP</b></p> <p>15' <b>Dual Roles of Calcification Features in the Mirai Mammographic Breast Cancer Risk Prediction Model: Early Micro-Calcification Detection and Identification of High-risk Calcifications</b>, Y. Wang, KU Leuven <b>YP</b></p> <p>15' <b>The precision of CT imaging for the evaluation of bone implant migration: a preclinical study on a porcine cadaver model</b>, M. Acke, VUB <b>YP</b></p> <p>15' <b>Detection of regional ventilation differences in normal and defected in vivo rabbit lungs using dynamic Xenon-gas enhanced DEC shuttle mode imaging</b>, E. Verelst, VUB <b>YP</b></p> <p>15' <b>Patient-tailored iodine contrast injection optimization in coronary PCCT angiography</b>, T. Busselot, UZLeuven <b>YP</b></p> <ul style="list-style-type: none"> <li>10' <b>Telemis - A DACS for non-physicists?</b>, B. Piscaglia</li> </ul> <p>Chairs: H. Bosmans, D. Dumont</p>	<p>Quantification in PET and SPECT</p> <ul style="list-style-type: none"> <li>30' <b>Quantitative SPECT/CT Imaging: The Foundation for Accurate Internal Dosimetry</b> - J. Tran-Gia, University Hospital Würzburg</li> </ul> <p>15' <b>Scatter compensation for dynamic brain PET using very fast Monte Carlo simulation</b>, S. Noë, KULeuven <b>YP</b></p> <p>15' <b>Alphavision: 12 points go to... Astatine-211</b>, L. Raes, UZBrussel <b>YP</b></p> <p>15' <b>Energy-based scatter correction in PET, accounting for the position dependent energy spectrum of the true coincidences</b>, S. Zaman Pour, KULeuven <b>YP</b></p> <p>15' <b>CT-free attenuation correction method for dedicated cardiac pinhole CZT system: a phantom study</b>, M. Hesse, UCLouvain</p> <p>Chairs: K. Baete, Y. d'Asseler</p>	<p>45' <b>QMs and MPEs – partners or rivals ?</b> - Survey results and discussion, A. Vaandering, D. Verellen, O. Michel</p> <p>15' <b>Findings from a longitudinal Study: What is the optimal strategy for PREM-assessment in Radiation Oncology?</b>, C. Benazzouz, UZ Leuven</p> <p>15' <b>Report and Analysis of a Major IT Breakdown Affecting a Hospital and its Radiotherapy Department</b>, S. Gabriel, CHU UCL Namur</p> <p>15' <b>RaySwitch: a project to implement RayCare and RayStation as a new OIS</b>, K. Snijders, Iridium Network</p> <p>Chairs: F. Borfiga, A. Vaandering</p>
12h30	Lunch			
13h30 - 15h30	<p><i>Dosimetry and dose calculation</i></p> <ul style="list-style-type: none"> <li>30' <b>Unraveling Dosimetric Loose Ends: From Foundations to Clinical Impact</b> - N. Reynarts, Institut Jules Bordet</li> </ul> <p>7' <b>SNAP - Absolute calibration of monitor unit chambers: A 10-year analysis for six Elekta linacs</b>, M. Mathot, CHU Liege</p> <p>7' <b>SNAP - Multi-institutional study on CT number variation using DirectDensity reconstruction</b>, M. Burghelaa, Bordet</p> <p>10' <b>Temporal drift in the calibration of Ir-192 brachytherapy sources: A BRAPHYQS multi-centre analysis</b>, M. Brabandere, UZLeuven</p> <p>10' <b>Validation of Acuros v18 model with Primo Monte Carlo code</b>, L. Pellegrini, CHU Tivoli</p> <p>15' <b>Optimizing the modeling of the Elekta Agility MLC of the CHU of Liege in Raystation 12A</b>, F. Tchelong Kwayeb, CHU Liege <b>YP</b></p> <p>15' <b>Dosimetric Characterization of a New Optically Stimulated Luminescence Film in Particle Beams</b>, M. Caprioli, UZLeuven <b>YP</b></p> <p>15' <b>Real-time assessment of ion recombination correction and dose rate using a dual-gap ionization chamber</b>, M Orts, UCLouvain <b>YP</b></p> <ul style="list-style-type: none"> <li>10' <b>PEO Medical</b></li> </ul> <p>Chairs: E. Sterpin, A. Goedgebeur</p>	<p><i>Daily MPE tasks: Dosimetry and optimisation</i></p> <ul style="list-style-type: none"> <li>30' <b>Dose monitoring systems: Challenges and perils of dose monitoring systems in radiology</b> - J. Binst, UZ Leuven</li> </ul> <p>15' <b>First Belgian local diagnostic reference level for paediatric whole-body and brain 18F-FDG PET/CT</b>, T. Assoignon, UCLouvain <b>YP</b></p> <p>15' <b>Effective dose conversion factors for adult and pediatric patients in dual energy extremity, dento-maxillofacial and ENT CBCT imaging</b>, K. Merken, UZLeuven</p> <p>15' <b>An investigation of the dose of CT scout views</b>, D. Hee, UZBrussel <b>YP</b></p> <p>15' <b>Validation of OpenMC, a Python Monte Carlo particle transport code, for patient dosimetry in conventional radiology</b>, J. Dabin, SCKCEN</p> <p>15' <b>Variations in participant positioning, scan direction and scanogram angle influence organ-specific radiation doses in routine low-dose chest CT for lung cancer screening</b>, L. Dhont, UGent <b>YP</b></p> <p>15' <b>Image Quality in lung cancer screening LDCT: comparing the NELSON trial to current conventional and photon-counting thoracic CT</b>, K. Torfs, KULeuven <b>YP</b></p> <p>Chairs: R. Destefanis, A. Delulle</p>	<p>Radiation protection - part I</p> <ul style="list-style-type: none"> <li>25' <b>Recent updates in the regulatory framework regarding medical radionuclides</b>. - M. Vandecapelle, FANC</li> <li>25' <b>Radiation protection aspects when introducing new radiopharma in the hospital</b> - Y. D'Asseler, UZ Gent</li> </ul> <p>25' <b>How much do 68Ga-, 177Lu- and 131I-based radiopharmaceuticals contribute to the global radiation exposure of nuclear medicine staff?</b>, L. Struelens, SCKCEN</p> <p>15' <b>Microscopic analysis of attenuating layers in personal radiation protective equipment (PRPE): evaluation of material composition and influence of exposure to cleaning agents</b>, S. Bayart, UGent <b>YP</b></p> <p>Chairs: E. Kint, T. Clarijs (BVS-ABR)</p>	<p>QMRT.be meeting</p>
15h30	Coffee Break			
16h00	General Assembly		<p>Radiation protection - part II</p> <ul style="list-style-type: none"> <li>25' <b>Radioactive release from hospitals in the environment</b> - J. Vives – SCK CEN</li> <li>25' <b>Monitoring systems for radioactive releases</b> – T. Ost - IRE</li> </ul>	
18h00	Social Event			

## Saturday 8th February

	Theatre	Foyer Royal	Foyer du Lac	Hocaille
9h00 - 10h30	<p>🕒 30' <b>Getting right foundations for reirradiation: what medical physics can do to ensure safe and robust dose planning and evaluation</b> - Ane Appelt, University of Leeds <i>Improving and modeling outcomes</i></p> <p>15' <b>Cumulative doses in radiotherapy treatment of brain cancer and lymphoma</b>, J. Rutten, UGent <span style="background-color: #FFD700;">YP</span></p> <p>15' <b>Development of a probabilistic model for metastatic lymphatic progression in early-stage breast cancer</b>, Z. Smine, Bordet <span style="background-color: #FFD700;">YP</span></p> <p>15' <b>The impact of a probabilistic definition of the target volume and radiobiological optimization on complication probabilities in proton therapy</b>, E. Peeters, UCLouvain <span style="background-color: #FFD700;">YP</span></p> <p>15' <b>Machine-Specific Fetal Dose Assessment in Proton Therapy for Breast Cancer During Pregnancy</b>, J. Hohmann, KULeuven <span style="background-color: #FFD700;">YP</span></p> <p><b>Chairs:</b> A. Delor, A.Catherine Wera</p>		<p>Measurements in Nuclear Medicine</p> <p>🕒 30' <b>Metrology: Providing a firm foundation for Nuclear Medicine</b> - Andrew Fenwick, NPL</p> <p>15' <b>Cross-calibration of a dose calibrator and a gamma counter for Gallium-68 and Fluor-18 activity measurements</b>, T. Assaignon, UCLouvain <span style="background-color: #FFD700;">YP</span></p> <p>15' <b>Generating low-count SPECT data from a single high-count acquisition</b>, W. Claeys, KULeuven <span style="background-color: #FFD700;">YP</span></p> <p>15' <b>Independent verification of activity determination for radiopharmaceutical preparations in nuclear medicine</b>, K. Baete, UZLeuven</p> <p><b>Chairs:</b> J. George, M. Hesse</p>	« CHIMP » meeting
10h30 - 11h00	<b>Coffee Break</b>			
11h00 - 12h30	<p><i>Tools and Methods for Adaptive Therapy</i></p> <p>15' <b>Intentional deep overfit learning to bypass treatment plan optimization in adaptive radiotherapy for lung cancer IMRT</b>, L. Vandenbroucke, KULeuven <span style="background-color: #FFD700;">YP</span></p> <p>15' <b>Reduced time and memory requirements for robust proton therapy planning through a beamlet-free approach</b>, D. Pross, UCLouvain <span style="background-color: #FFD700;">YP</span></p> <p>15' <b>Real-time adaptive proton therapy with a beamlet-free optimizer</b>, V. Dormal, UCLouvain <span style="background-color: #FFD700;">YP</span></p> <p>10' <b>Deformable Image Registration for contour propagation for Head and Neck adaptive radiotherapy</b>, I. RHIMI, Bordet / Hospital Portes Provence</p> <p>10' <b>Evaluation of delivered dose and correlation with toxicities for radiotherapy of head and neck cancers</b>, E. Gnacadja, Bordet / IBA</p> <p>10' <b>Dosimetric impact of delivering beams lateral first vs. clockwise order for prostate SABR with 1.5T MR-Linac</b>, A. Gulyban, Bordet</p> <p>7' <b>SNAP - Bone bulk density based on classical, Direct Density and synthetic CT for prostate MR guided SBRT: Is there a relevant dosimetric impact?</b>, A. Gulyban, Bordet</p> <p><b>Chairs:</b> L. Vandewinckele, N. Reynaert</p>	<p><i>Daily MPE tasks: Quality controls and optimisation</i></p> <p>🕒 30' <b>Adaptation of classic QC test for testing on new CNR-optimized fluoroscopy systems</b> - M. Dehairs, Institut J.Bordet</p> <p>15' <b>Optimization in paediatric CT: the power of protocol management</b>, J. Binst, UZLeuven</p> <p>15' <b>In-depth acceptance testing of six mobile digital radiography systems for bedside x-ray imaging</b>, N. Marshall, UZLeuven</p> <p>15' <b>A workflow to harmonize CT abdomen protocols beyond dose equalization</b>, J. Vignero, UZLeuven</p> <p>15' <b>Pitfalls in quality control testing of contrast-enhanced mammography</b>, K. Houbrechts, UZLeuven <span style="background-color: #FFD700;">YP</span></p> <p><b>Chairs:</b> G. Van Gompel, R. Destefanis</p>	<p>NUCLEAR MEDICINE</p> <p>Parallel meeting for Nuclear medicine professionals</p> <p><i>Program to be confirmed</i></p> <p><b>Chairs:</b> to be confirmed</p>	RT24 meeting
12h30 - 13h30	<b>Lunch</b>			
13h30 - 15h00	<p>🕒 Closing debate: <b>"Protect the individual patient or improve the well-being of the population: must we choose?"</b></p> <p>Steve Ebdon-Jackson, formerly at Health Protection Agency UK</p> <p>Ricard Martinez, University of Valencia</p> <p>Wim Pinxten, University of Hasselt</p> <p><b>Chairs:</b> E. Sterpin, A. Barragán-Montero</p>			
15h00 - 15h30	<b>Coffee Break</b>			
15h30 - 16h00	Awards and closing			