

Conference Programme

Poster Session 1 – Monday May, 27

Radiation Protection and Dosimetry in Medicine	Author	Poster Number
PATIENT DOSIMETRY OF PEDIATRIC ICU DURING CHEST RADIOGRAPHY	Ana Paula Bunick	P1.1
Dose profile study in mammographic exposition using radiochromic film	Fernanda Santos	P1.2
Calculation of the typical values of reference levels for a hospital facility in the city of Medellín	Carolina Viloria Barragán	P1.3
Quality control and entrance skin dose evaluation in a pediatric CT scanner	Danielle Filipov	P1.4
Patient Radiation Dose and Image Quality in Plain Radiography: An assessment of Certain Common Procedures in Ten Capital Hospitals in Sudan	Esameldeen Babikir	P1.5
Evaluation of Physical Spaces of Nuclear Medicine Services	Gládis G. Reisemberger	P1.6
Local DAP and Effective Dose values during Pacemaker Implantations	Gabriela Cardoso	P1.7
Dosimetric applications of borate glass matrix (MgB ₄ O ₇ and MgB ₂ O ₄) doped with Cerium and Dysprosium and co-doped with Lithium for study as OSL dosimeter.	Iury Santos Silveira	P1.8
Quality control of solar protection films via design of experiments	Linda Caldas	P1.9
Assessment of Patient Radiation Dose from Cardiac Computed Tomography Procedures	Mohammed Alkhorayef	P1.10
Monte Carlo study for development of a radiation field simulating secondary neutrons produced in carbon-ion radiotherapy	Shunsuke Yonai	P1.11
Evaluation of the Dose Length Product in skull tomographic exams of patients with traumatic brain injury and decompressive craniectomy	Silvio Tacara	P1.12
Development of Inverse Planning Strategy Using Volumetric Arc Therapy for Intensity Modulated Radiation Treatment for Prostate Cancer	Yong Nam Kim	P1.13

Computational Dosimetry and Phantoms	Author	Poster Number
Commercial filament testing for use in 3D printed phantoms	Matheus Savi	P2.1
Development of Chinese Pediatric Reference Phantoms Series and Application in X-ray Radiography Dose Assessment	Ruiyao Ma	P2.2
Using micro silica glass bead TLDs in HDR brachytherapy	Somayyeh Babaloui	P2.3
THUBrachay: a fast Monte Carlo code for brachytherapy dose calculation	Rui Qiu	P2.4

Monte Carlo and hybrid methods in Dosimetry	Author	Poster Number
Fluence rate and dose from cosmic-ray-induced neutron inside the aircraft	Claudio Federico	P3.1
A Monte Carlo Variance Reduction Method for Small Detectors outside the Reactor Core	LI Junli	P3.2
Integration of Radon Suppressed Function to Low Background Gamma-ray Spectroscopy System: Monte Carlo Simulation Approach	Sy Minh Tuan Hoang	P3.3
Determination of initial electron parameters by means of Monte Carlo simulations for the Siemens Artiste Linac 6 MV photon beam	Taylan TUĞRUL	P3.4

Conference Programme

Poster Session 1 (cont.) – Monday May, 27

Environmental Dosimetry, radioactivity measurement and monitoring	Author	Poster Number
Radioactivity and Background Radiation in the Production Area of Hokutolite in Taiwan	Chun-Chih Lin	P4.1
Neutron activation analysis of meteorites at the VR-1 training reactor	Milan Stefanik	P4.2
Concentration of cesium 137 activity in soils of the state of Espírito Santo, Brazil	Ricardo Garcêz	P4.3

Dosimetry in radiological and nuclear emergencies and accidents	Author	Poster Number
Use of biological dosimetry to confirm radiation overexposure - case study	Octávia Monteiro Gil	P5.1
Evaluation of Patient Radiation Dose in Routine Radiographic Examinations in Saudi Arabia	Osman Hamid	P5.2
Estimation of radiation doses in the area of the NPP after a reactor accident	Tomas Urban	P5.3

Biodosimetry, Radiobiology and Retrospective Dosimetry	Author	Poster Number
Herbs and spices like suitable material for retrospective dosimetry - photo and thermo stimulated luminescence study from low to hight radiation dose	Aleksandar Krleski	P6.1
The impact of detection thresholds in automatic scoring of radiation-induced and background DNA damage foci	Ana Belchior	P6.2
Study of the effectiveness of low-densely ionizing radiation as a DNA-damaging anticancer treatment in different cancer cell lines	Joana Guerreiro	P6.3
The effect of temperature on g-values of soda-lime samples irradiated at different doses	Maja Vojnić Kortmiš	P6.4

Dosimetry of radon exposures	Author	Poster Number
Study of the influence of humidity degree into the adsorption capacity of radon by means of granular activated carbon used in the canister device	Gumersindo Verdú	P8.1
Study of the adsorption capacity of radon by means of granular activated carbon of vegetal and mineral origin used in the canister device	Gumersindo Verdú	P8.2

Conference Programme

Poster Session 2 – Tuesday May, 28

Radiation Protection and Dosimetry in Medicine	Author	Poster Number
GeB Flat Fibre TL dosimeters for in-vivo measurements in radiosurgery	Amjad Alyahyaw	P1.1
Maximum dose to the thyroid organ assessment using APD Unfors EDD-30 for patients submitted to mammography examinations	Ana Roda	P1.2
Dosimetry of Testicular Dose Measurements in Radiotherapy: A Study Using Thermoluminescent Dosimeter and Optically Stimulated Luminescent Dosimeter	Chia-Chun Lu	P1.3
Assessing personnel doses induced by the veterinary X-ray diagnostic inspections in Taiwan	Fang-Yuh Hsu	P1.4
Dose evaluation in patients submitted to chronic thrombo-embolic pulmonary hypertension treatment with Balloon Pulmonary Angioplasty	Gabriela Cardoso	P1.5
Optical absorbance analyses of PVA-GTA based Fricke gel dosimeters	Grazia Gambarini	P1.6
National survey of radiation dose in computed tomography in Taiwan: a distribution from 2009 to 2018	Hui-Yu Tsai	P1.7
Study of Patient Doses in Conventional Diagnostic Radiology in Ukraine	Larysa Stadnyk	P1.8
A study preliminary a new methodology of QA in Computerized Tomography	Laura Larré Godolfim	P1.9
Estimation of Absorbed Dose on Eye Lens for Patients Undergoing a Chest CT	León Madrid M.I.	P1.10
An efficient treatment planning approach for diminishing critical organ dose in volumetric modulated arc therapy technique for synchronous bilateral breast cancer patients	Lu-Han Lai	P1.11
Patient dose optimization for computed radiography using physical and observer-based measurements as image quality metrics	Marcelo Freitas	P1.12
Monte Carlo study of out-of-field exposure in carbon-ion radiotherapy: Organ doses in pediatric brain tumor treatment	Shinnosuke Matsumoto	P1.13
Protocol optimizations of chest Computed Tomography scans using pediatric and adult chest phantoms	Fernanda Santos	P1.14

Computational Dosimetry and Phantoms	Author	Poster Number
Determination of the detective quantum efficiency of a digital dental X-ray imaging devices: intrinsic performance study	Yi-Chun Lin	P2.1
Measurement of the Stopping Power of liquid water for carbon ions below 6 MeV	Thomas Braunroth	P2.2
Construction of X-ray source model of various recent CT scanners and comparison of exposure dose using voxel phantom and Monte Carlo simulation	Yusuke Koba	P2.3

Monte Carlo and hybrid methods in Dosimetry	Author	Poster Number
Monte Carlo design of a moderator to produce a thermal neutron source from a ²⁴¹ Am/ ⁹ Be source	LENIN CEVALLOS ROBALINO	P3.1
pMC a fast-low energy proton simulation program	Luis Peralta	P3.2
Dosimetry of narrow, high-energy x-ray sources typical of cargo screening systems	Paul M. Bergstrom	P3.3
The Latest Backgammon Detector Technology	Christopher Chantler	P3.4

Conference Programme

Poster Session 2 (cont.) – Tuesday May, 28

Environmental Dosimetry, radioactivity measurement and monitoring	Author	Poster Number
Radiation dose due to natural radionuclides in soils of the state of Rio de Janeiro (Brazil)	Fernando C. A. Ribeiro	P4.1
The latest development and the new extended capabilities of the GENII-LIN soil transfer model	Francesco Teodori	P4.2
Application of deconvolution technique on the airborne gamma spectrometry data analysis	Jaroslav Klusoň	P4.3
The Environmental Level Multi-Source Air Kerma Rate Calibration System	Shih-Wen Wang	P4.4
Low dose and Protracted exposures	Author	Poster Number
Quantification of the biological effects induced by low doses of X-radiation in non-tumor cells of the breast	Ana Filipa Inácio	P5.1
Therapy by auger electrons: DNA's intercalators radiolabelled with ^{99m}Tc and specifics for prostate carcinoma	Diogo Figueiredo	P5.2
Comparative analysis of changes in the reproductive system of male rats caused by exposure to external radiation in doses of 0.5 and 2.0 Gy	Natalya Chueshova	P5.3
Biodosimetry, Radiobiology and Retrospective Dosimetry	Author	Poster Number
Quantification of DNA damages by Real-time PCR Reactions and Its Application to Radiation Monitoring System	Kikuo Shimizu	P6.1
LUMINESCENCE PROPERTIES OF NATURAL DEAD SEA SALT PELLET DOSIMETRY UPON THERMAL STIMULATION	David Bradley	P6.2
Characterization of the Radioluminescence Response of P-doped Silica Optical Fibers under kilovoltage and Megavoltage X-rays	David Bradley	P6.3
Neutron Dosimetry	Author	Poster Number
Study of a new multisphere neutron spectrometer printed on a 3D printer using ABS filament material	Roberto Méndez-Vilafañe	P7.1

Conference Programme

Poster Session 3 – Wednesday May, 29

Radiation Protection and Dosimetry in Medicine	Author	Poster Number
Diagnostic Reference Level for Computed Tomography Examinations In Sudan: A Multicentre Study	Abdelmoneim Sulieman	P1.1
Assessment of imaging protocol and patient radiation exposure in pediatric computed tomography angiography	Ali Aamry	P1.2
Dose Evaluation of a 137-cesium source exposition using a solid water phantom	Fernanda Santos	P1.3
Feasibility study on quality assurance of THOR-BNCT performed with TEPC	Fang-Yuh Hsu	P1.4
Monte Carlo study of the potential reduction in out-of-field dose using a flexible neutron absorber in single-ring wobbling proton therapy	Hui-Yu Tsai	P1.5
Analysis of Hp(0,07) readings measured above the lead apron	Cristian Candela-Juan	P1.6
Evaluation of the mean glandular dose and irradiation parameters in digital mammograms of patients with breasts with sparse fibroglandular densities	Irene Nakano	P1.7
Nuclear medicine in the Russian Federation at last decade: structure and doses	Irina Zvonova	P1.8
An extrapolation chamber for the establishment of a primary radiation standard in ⁸⁵ Kr and ¹⁴⁷ Pm beta radiation beams	Linda Caldas	P1.9
Evaluation of various head flexion angles in hippocampal-avoidance whole-brain radiotherapy using volumetric modulated arc therapy	Lu-Han Lai	P1.10
DOSEtrace Research capabilities for radiation protection dosimeters: Training actions	Oliver Hupe	P1.11
Comparative evaluation of image quality and dose between 2D full field digital mammography and digital breast tomosynthesis	Yi-Shuan Hwang	P1.12

Computational Dosimetry and Phantoms	Author	Poster Number
Effect of Air Cavity Shape and Size on Interface Dose Evaluated by Using CVD Diamond Films	Chien Yi Ting	P2.1
Comparative study of dose deposition by particle beams for pediatric oncologies, retinoblastom and brain tumors using MCNPX	Iury Santos Silveira	P2.2
Development of double dosimetry algorithm for assessment of effective dose to staff in interventional radiology	JIYOUNG KIM	P2.3
Effect on calibration phantom composition for stoichiometric calibration in Monte Carlo simulation	W HSU	P2.4

Monte Carlo and hybrid methods in Dosimetry	Author	Poster Number
A MATLAB-based Graphical User Interface to Simulation with GATE Monte Carlo in Medical Physics	Catherine Costa Oliveira da Silva	P3.1
The Impact of CT-density conversion curve for VMAT plans in Monaco Monte Carlo TPS: case of head and neck cancers	El haffari said	P3.2
GEANT4 simulation in proton medical imaging	Hugo Schelin	P3.3

Conference Programme

Poster Session 3 (cont.) – Wednesday May, 29

Individual Dosimetry and Monitoring	Author	Poster Number
Production and study of thermoluminescent materials for low dose dosimetry applications	Patrícia Nicolucci	P4.1
Individual Dose Monitoring of Medical Staff in Ukraine	Larysa Stadnyk	P4.2
MEASUREMENT OF PHOTOELECTRON GENERATION IN A GOLD COATED GLASS SLIDE THERMOLUMINESCENCE DOSIMETER	David Bradley	P4.3

Environmental Dosimetry, radioactivity measurement and monitoring	Author	Poster Number
Optically and thermally stimulated luminescence in LaAlO ₃ :Dy ³⁺ beta irradiated	Angélica de León	P5.1
Design and implementation of a gamma spectrometry mobile unit using LaBr ₃ detectors	Elena Prieto Butillé	P5.2
APPLICABILITY OF AIR VEHICLES ON RADIOLOGICAL AND NUCLEAR MONITORING – A LITERATURE AND HISTORICAL REVIEW	Joyce Silvestre	P5.3
Use of ceramic α -Al ₂ O ₃ detectors for discriminate beta and photon fields	Luiz Claudio Meira Belo	P5.4

Radiation Protection and Dosimetry in Industry	Author	Poster Number
Dosimetric characterization of thin diodes in an electron beam facility for radiation processing	Carmen Bueno	P6.1
Anomaly Detection of TLD Glow Curves Using Support Vector Machines	Gal Amit	P6.2
Evaluation of transparent and black commercial soda-lime glass irradiated with gamma radiation	Linda Caldas	P6.3

Micro and Nanodosimetry	Author	Poster Number
Investigation of semiconductor polymer-Ti ₂ O ₃ nanocomposites for x-ray detection	Leena A. Al-Sulaiti	P7.1
From DNA damage simulation to cell death simulation by the Biophysics Monte Carlo Simulation Code -- NASIC	Li Junli	P7.2

Conference Programme

Poster Session 4 – Thursday May, 30

Radiation Protection and Dosimetry in Medicine	Author	Poster Number
Characterisation of borosilicate glass slides as a potential thermoluminescent dosimeter	Amal Alqahtani	P1.1
Dosimetric Measurement of Scattered Radiation for Simulated Head and Neck Radiotherapy with a Hand-Made Oral Prosthesis	Chia-Chun Lu	P1.2
Dosimetric characterization of 3D printed phantoms at different infill percentage for diagnostic x-ray energy range	Daniel Villani	P1.3
Radiation dose assessment to caregivers of the out-patients treated with iodine-131 for thyroid	Fang-Yuh Hsu	P1.4
Treatment of mixtures of lead and barite powders in ceramic materials for the shielding of ionizing radiation by the thermal spray process	Gladis G. Reisemberger	P1.5
Dosimetric characterization of high-linearity bone radiation detector exposed to gamma-rays	Linda Caldas	P1.6
Concrete analysis for radiological protection	Caroline K. Bandeira	P1.7
Dose conversion coefficients for medical diagnostic imaging with the Chinese reference phantoms	Rui Qiu	P1.8
Establishment of diagnostic X-ray air kerma standard in Taiwan	Yi-Chun Lin	P1.9
A Novel Method to Improve Learning Efficiency of Artificial Neural Network Algorithm to Estimate Dose Distribution for Radiation Treatment	Yong Nam Kim	P1.10

Monte Carlo and hybrid methods in Dosimetry	Author	Poster Number
Preclinical Dosimetry in the Development of New Radiopharmaceuticals through Monte Carlo Simulation	Catherine da Silva	P2.1
Comparison of the Response Between Different Dosimeters in Clinical Beams: A Monte Carlo Study	Ney Souza	P2.2
Activation study of a 15 MeV LINAC via Monte Carlo simulation	Sara Vichi	P2.3

Individual Dosimetry and Monitoring	Author	Poster Number
New approaches in dosimetry surveillance using electronic devices	Patricia Mayo	P3.1
Energy dependence of an individual dosimeter: Experimental and PENELOPE-Monte Carlo simulation results	Patrícia Nicolucci	P3.2
A Snapshot of Occupational Radiation Dose in Veterinary Radiology	Wiam Elshami	P3.3
Development and verification of a new OSL-eye-lens dosimeter and algorithm	Fang-Yuh Hsu	P3.4
Occupational exposure doses in a Nuclear Medicine Department	Vanessa de Sousa	P3.5
Type testing of $^7\text{Li}^{211}\text{B}^{40}\text{O}_7\text{:Cu}$ finger thermoluminescent dosimeters for the assessment of $\text{Hp}(0.07)$	J.F. Benavente	P3.6
Assessment of patient's and occupational exposure from PET/CT with Fluoro-D-Glucose (^{18}F -FDG)	Hassan Salah	P3.7
Proficiency Testing and Criteria Comparison for External Personnel Dosimeters Evaluation in Taiwan	Yi-Chun Lin	P3.8

Conference Programme

Poster Session 4 (cont.) – Thursday May, 30

Environmental Dosimetry, radioactivity measurement and monitoring	Author	Poster Number
Trace elements and Radon in Groundwater across the State of Qatar	Huda Al-Sulaiti	P4.1
Evaluation of the maximum emitting layer of Rn-222 in cementitious building materials	Hugo Schelin	P4.2
Environmental impact assessment relevant to accidental events during nuclear reactor plants decommissioning activities	M. Giardina	P4.3
Radiation Shielding and Dosimetry Accelerators	Author	Poster Number
Transmission properties of X-ray radiated from Crookes tube used in teaching of science	Do Duy KHIEM	P5.1
Induced activity measurements in Cu target for Ne and C ions	Hiroshi Yashima	P5.2
Radiation monitoring network at ALBA Synchrotron	A. Devienne	P5.3
Comparing Measurement Methods and Monte-Carlo Simulations to assess dose levels in the irradiation rooms during treatment in the MedAustron hadron therapy center	Lukas Jaegerhofer	P5.4
Nuclear Data and Evaluation	Author	Poster Number
Neutron spectrum determination of accelerator-driven d(10)+Be neutron source using the multi-foil activation technique	Milan Stefanik	P6.1
RADIATION DOSE TO MALAYSIAN POPULACE VIA THE CONSUMPTION OF COFFEE	David Bradley	P6.2
Dosimetry in space applications	Author	Poster Number
TLD-600/TLD-700 thermoluminescent dosimetric pair for monitoring aerospace neutron fields	Odair Lelis Gonçalves	P7.1

Conference Programme

Poster Session 5 – Friday May, 31

Radiation Protection and Dosimetry in Medicine	Author	Poster Number
Organ Dose and Radiogenic Risk in Cone-Beam Computed Tomography Examinations	Aljohara H. Almoqren	P1.1
Alanine Pellets Comparison using EPR Spectrometer suitable to be use in Quality Assurance of Gamma Knife System in Romania	Catalin Tuta	P1.2
Evaluation of the dose distribution of tomotherapy using polymer gel dosimeters and optical computed tomography with ring artifact correction	Cheng-Ting Shih	P1.3
Absorbed and Effective Doses evaluation in a pediatric PET/CT scan	Fernanda Santos	P1.4
Dose estimation per Occupationally Exposed Individual for the burden of eighty patients per week considering doses of preparing room, radioisotope injection, hall circulation, and command room according to AAPM 108	Heber Simões Videira	P1.5
Measurement and Reconstruction of High Energy Photon Beam Spectra using Compton Spectrometry	John Peter O. Manrique	P1.6
Comparative dosimetric study between the Acuros XB and AAA algorithm for treatment of lung tumor with RapidArc technique	Lucas Delbem Albino	P1.7
Quality control in "Intensity Modulated Radiation Therapy-IMRT" using thermoluminescent dosimeters	Letícia Rodrigues	P1.8
EVALUATION OF DOSE AND DIAGNOSTIC IMAGE QUALITY USING BRAZILIAN BREAST PHANTOM	Fernanda Santos	P1.9
Personal dose equivalent of ^{18}F -FDG PET assessed using a semiconductor personnel dosimeter to protect workers from radiation	Yasuyuki Takahashi	P1.10

Computational Dosimetry and Phantoms	Author	Poster Number
Simulation of radiographic images from computational models rendering for use in dosimetry	Caroline Kretezel Bandeira	P2.1
Determination of interaction quantities of radiation with dosimeters through PENELOPE code	Mirko Salomón Alva Sánchez	P2.2
A comparison of age-dependent organ depth distributions: stylized versus voxel phantom series	Shaheen A. Dewji	P2.3

Monte Carlo and hybrid methods in Dosimetry	Author	Poster Number
3D dosimetry based on SPECT/CT: Evaluation for Lutetium Therapy using Monte Carlo simulation and the NEMA phantom	Gumersindo Verdú	P3.1
Mammographic density assessment with the LIBRA software	Hugo Schelin	P3.2

Environmental Dosimetry, radioactivity measurement and monitoring	Author	Poster Number
PLASMA REACTOR TO VIABILIZE THE VOLUMETRIC REDUCTION OF RADIOACTIVE WASTES	Ademar J.P. Junior	P4.1
Optically stimulated luminescence dosimetric characteristics $\text{TiO}_2\text{:Ce}$	Teodoro Rivera-Montalvo	P4.2
Radioactive waste management in a Nuclear Medicine Department	Vanessa de Sousa	P4.3

Conference Programme

Poster Session 5 (cont.) – Friday May, 31

Radiation Protection and Dosimetry in Industry	Author	Poster Number
Fading and Retrospective Responses for Thermoluminescent Dosimetry of Silica Beads Irradiated with High-dose Electron-beam	Katie Ley	P5.1
Evaluation of the FTIR technique for the linearity assessment of commercial soda-lime glass irradiated with gamma radiation	Linda Caldas	P5.2
Comparison of doses, secondary particle yields and LET spectra between semiconductor reliability testing using protons and neutrons	Yueh Chiang	P5.3
Micro and Nanodosimetry	Author	Poster Number
Influence of ionizing radiation on photo-thermo-stimulated exoelectron emission spectra of Gd ₂ O ₃ nanoparticles and films	Marina Romanova	P6.1
Microdosimetry modelling for evaluation of the therapeutic effect of different radionuclides in various cell and micrometastasis geometries	Roar Skartlien	P6.2
Silicon photonics for micron-scale dosimetry and calorimetry of industrial and radiotherapy beams	Ronald E. Tosh	P6.3
Measurement of correlations between two nanometric volumes in the track structure of ²⁴¹ Am alpha particles	Gerhard Hilgers	P6.4