

## **Session Program**

**Jun 7 - 11, 2026**

## **ICDA-5**

### ***Poster session***

Prague, Czechia, CTU in Prague, Faculty of Nuclear Sciences and Physical Engineering  
Břehová 78/7 115 19 Prague 1 Czech Republic GPS. 50.0910372N, 14.4163028E

## Mon, June 8

5:45 PM

**Poster session: Coffee break and Poster session (Basic concepts and principles in dosimetry, Computational methods and modelling in dosimetry, Radiation detection and spektrometry, Dosimetry in radiological and nuclear emergencies and accidents, Dosimetry and radiation protection in industry, Personnel dosimetry and monitoring, Other topics related to ionizing radiation)**

**Session** |

**Location:** Prague, Czechia, CTU in Prague, Faculty of Nuclear Sciences and Physical Engineering, Břehová 78/7 115 19 Prague 1 Czech Republic GPS. 50.0910372N, 14.4163028E

5:45 – 5:47 PM

**Quantitative Impact of ICRU Report 90 on the NRSL/INER Ir-192 Primary Reference Air Kerma Rate Standard**

**Speaker**

Dr Rong-Jiun Sheu

5:47 – 5:49 PM

**Uncertainty and Sensitivity Analysis of the Effective Dose in an Industrial Exposure Scenario at a Decommissioned Nuclear Facility Using the RESRAD-ONSITE Code**

**Speaker**

Patricia Mayo

5:49 – 5:51 PM

**Computational Validation of a Traceability Chain for PKA Meter Calibration**

**Speakers**

JOSÉ NERES DE ALMEIDA JUNIOR, Maria da Penha Potiens

5:51 – 5:53 PM

**EVALUATION OF THE LINEARITY OF A NEW DOSIMETRIC SUPPORT**

**Speaker**

GABRIEL NASCIMENTO

5:53 – 5:55 PM

**Pipeline applied in dicom complete studies to extract dosimetric parameters**

**Speaker**

bruno chaves dos santos

5:55 – 5:57 PM

**Errors in the calculation of dosimetry quantities from airborne gamma spectrometry data and possibilities of their reduction**

**Speakers**

Jaroslav Klusoň, Václav Štěpán

5:57 – 5:59 PM

**Radiological characterization and radon exhalation assessment of building materials in powdered and finished states**

**Speaker**

Cristina Trull-Hernandis

5:59 – 6:01 PM

**Optimization of Long-term Counting Stability in  $2\pi$  Proportional Counter via Dynamic Flow Equilibrium and Real-time Barometric Compensation****Speaker**

Dr Rong-Jiun Sheu

6:01 – 6:03 PM

**Nuclear Spectrometric System for Characterizing Unknown Fast Neutron Fields****Speaker**

Dr Aleš Jančář

6:03 – 6:05 PM

**Development of a Small-Area Gas Flow Proportional Counter for Uniformity Mapping of Large Area Reference Sources****Speakers**

Ademar José Potiens Júnior, Maria da Penha Potiens, Raphael Elias Diniz

6:05 – 6:07 PM

**Optimization of Gamma Spectrometry Acquisition Parameters for Drums Eligible for Clearance****Speakers**

Dr Ademar Potiens Junior, Mr Fabio Bessa Villafranca

6:07 – 6:09 PM

**Full-Field X-ray Fluorescence Imaging of Uranium-Rich Domains in Mineralized Samples from a Sandstone-hosted Uranium Deposit****Speaker**

Hana Průšová

6:09 – 6:11 PM

**Safe training solution for unsafe radiological emergency operational readiness training****Speaker**

Václav Štěpán

6:11 – 6:13 PM

**Outcome of the RetroGlass Project: TL characterization of smartphone screen glass for emergency retrospective dosimetry across current phone models****Speaker**

Michael Discher

6:13 – 6:15 PM

**Spatially Resolved X-ray Diffraction Mapping of Welded Metals Using a Multipixel Color X-ray Camera****Speaker**

Andrej Gvozdic

6:15 – 6:17 PM

**Radiation Dose Assessment for Handheld XRF Operators in Taiwan****Speaker**

Prof. Fang-Yuh Hsu

6:17 – 6:19 PM

**Gamma irradiation and alanine dosimetry for sterilization of *Aedes aegypti* males in SIT applications****Speaker**

VIVIANE ASFORA

6:19 – 6:21 PM

**Workplace field interlaboratory comparison on etched track neutron personal dosimetry****Speaker**

Michael Hajek

6:21 – 6:23 PM

**Spectral Characterization and Monte Carlo Evaluation of a TLD-600/TLD-700 Neutron Personal Dosimetry System in a Reference Am-Be Irradiation Field****Speaker**

Dr Lenin E. Cevallos-Robalino

6:23 – 6:25 PM

**Procedures for Ensuring Radiation Protection of Selected Groups of Persons in Therapy with Radiopharmaceutical Labelled Lu-177****Speaker**

Jana Hudzietzová

6:25 – 6:27 PM

**A 20-year bibliometric analysis for eye lens dosimetry in occupational exposure.****Speaker**

Eleni Papadomarkaki

6:27 – 6:29 PM

**Performance Evaluation of Eye Lens Dosimeters (TLD and OSLD) under ISO and ANSI Standards: A National Proficiency Testing Study****Speaker**

Dr Ying-Lan Liao

6:29 – 6:31 PM

**How radiation risk communication is affected by too many currently used quantities****Speaker**

Jozef Sabol

6:31 – 6:33 PM

**Investigation of Air Gap Effects on the Calibration and Neutron Response of Thermoluminescent Dosimeters using Monte Carlo Methods****Speaker**

M. Hiller

6:33 – 6:35 PM

**The communication of radiation risk with the public, patients and workers****Speaker**

Mr Jozef Sabol

6:35 – 6:37 PM

**Enhancing Regulatory Compliance In Radiation Protection: A Retrieval-Augmented Generation (Rag) Approach For IAEA And CNEN Standards****Speaker**

Ademar José Potiens Júnior

6:37 – 6:39 PM

**XRF scanning as a probe into mobility of contaminants in wood from a Mediaeval smelting area****Speaker**

Mr Václav Procházka

6:39 – 6:41 PM

**Role of Alkaline Earth Oxides in Tailoring Gamma-Ray Shielding Performance of TeO<sub>2</sub>-B<sub>2</sub>O<sub>3</sub>-PbO Glasses****Speaker**

Aljawhara Almuqrin

6:41 – 6:43 PM

**Evaluation of image filtering methods for radiation dose optimization in digital radiography using the Alderson RANDO phantom****Speakers**

Ms Celia Tendero, Ms Mónica Chillarón, Mr Vicente Vidal

6:43 – 6:45 PM

**A Modular Portable Digital TDCR System with Integrated Shutter Design for Mobile Operation****Speaker**

Dr Rong-Jiun Sheu

6:45 – 6:47 PM

**Silicon based neutron detectors using 3D printed converters****Speaker**

Carles Domingo

6:47 – 6:49 PM

**RADIOLOGICAL PROTECTION REGULATION: A COMPARATIVE ANALYSIS OF BRAZILIAN AND PORTUGUESE LEGISLATION AS A REFERENCE FOR ANGOLA IN LIGHT OF ICRP AND IAEA RECOMMENDATIONS****Speakers**

Ildo Domingos Ufala, Maria da Penha Albuquerque Potiens

6:49 – 6:51 PM

**Experimental Study on Radon Mitigation by Laminated Plasterboard Panels: Effects of Configuration and Surface Finish on Reduction Efficiency****Speaker**

Beatriz Garcia Fayos

6:51 – 6:53 PM

**Experimental Study of Conventional Building Materials as Radon Barriers for indoor spaces: Influence of Orientation and Surface Finish****Speakers**

Beatriz Garcia Fayos, GUMERSINDO JESUS VERDU MARTIN

7:00 PM

## Tue, June 9

3:30 PM

### Poster session: Coffee break and Poster session (Dosimetry and radiation protection in medicine and biology)

**Session** |

**Location:** Prague, Czechia, CTU in Prague, Faculty of Nuclear Sciences and Physical Engineering, Břehová 78/7 115 19 Prague 1 Czech Republic GPS. 50.0910372N, 14.4163028E

3:30 - 3:32 PM

#### Establishment of a national primary standard for Tc-99m activity using a self-developed $4\pi\text{ex-}\gamma$ coincidence counting system and traceable transfer to clinical instrumentation

**Speaker**

Dr Rong-Jiun Sheu

3:32 - 3:34 PM

#### Implementation of a Passive SOBP Proton Minibeam System on a Static Scattering Beamline

**Speaker**

Ms Tsz-Yui Chan

3:34 - 3:36 PM

#### Development of a dosimetric system for IBMT brachytherapy

**Speakers**

Ana Gabryele Moreira dos Santos, Noemi Aguiar Silva

3:36 - 3:38 PM

#### Experimental Fetal Dose Estimation in Pregnant Patients Undergoing Radiotherapy with Modern Techniques and fetal shielding.

**Speaker**

GUMERSINDO JESUS VERDU MARTIN

3:38 - 3:40 PM

#### Development of a new dosimetric system for portable X-ray equipment.

**Speaker**

Maria da Penha Potiens

3:40 - 3:42 PM

#### Assessing Patient Exposure in PET/CT scans: A Head and Neck Dose Parameter Study

**Speaker**

Dr. Ahmed Alanazi

3:42 - 3:44 PM

#### Dosimetric Impact of Varying Regional Nodal Irradiation Extents in Synchronous Bilateral Breast Cancer Using Hypofractionated VMAT

**Speaker**

Prof. Lu-Han Lai

3:44 - 3:46 PM

#### Comparative study of the interaction between electron and photon beams in nPAG dosimeter

**Speakers**

Dr Leandro Mariano, Anna Luiza Malthez

3:46 – 3:48 PM

**Dosimetric Characterization of Small and Narrow Electron Beam Cutout Fields in Keloid and Breast Scar Boost Radiotherapy****Speaker**

Yu Fang Lin

3:48 – 3:50 PM

**Investigation of the OSL Mechanisms and Dosimetric Properties of MgLiPO<sub>4</sub>:Ti****Speakers**

Ms Anna Zampieri, Dr sonia tatumi

3:50 – 3:52 PM

**Impact of Air Gaps on Dose Distribution in Gynecological Brachytherapy Using Monte Carlo Simulation****Speaker**

Mrs Ana Laura Ramos Mitidiero

3:52 – 3:54 PM

**Monte Carlo Evaluation of Scalp Dose in Whole Brain Radiotherapy****Speaker**

Mr Felipe Beraldo da Cruz

3:54 – 3:56 PM

**Comparison of dosimetric differences between brachytherapy and teletherapy in tongue cancer: a Monte Carlo simulation approach****Speaker**

Mrs Ingrid Cristina dos Santos Silva

3:56 – 3:58 PM

**Numerical Dosimetric Evaluation of a Hepatic Radioembolization Procedure for Hepatocellular Carcinoma****Speaker**

Mr Victor Luiz Ossick Evangelista

3:58 – 4:00 PM

**Dosimetric Impact of Breast Tissue Expanders in Post-Mastectomy Radiotherapy Treatments****Speaker**

Mrs Fernanda Quadros Fuzato

4:00 – 4:02 PM

**Comparative Analysis of Monte Carlo-Based Approaches for Neutron Ambient Dose Equivalent Estimation in a Proton Therapy Facility****Speaker**

Adrián Díaz Comeche

4:02 – 4:04 PM

**Estimation of Patient effective dose, breast dose and cancer risk during Cardiac CT examinations****Speaker**

Prof. Abdelmoneim Sulieman

4:04 – 4:06 PM

**Scattered Radiation in Orthopedic Fluoroscopy: Do Metallic Implants Increase Occupational Exposure?****Speakers**

Cassio Vilela Komatsu, Mr Felipe Beraldo da Cruz

4:06 – 4:08 PM

**Cumulative Ionizing Radiation Exposure from Chest Computed Tomography in a Health Microregion (2018–2022).****Speakers**

Dr Leticia França Fiuza Bacelar Bacelar, Dr Maria da Penha Albuquerque Potiens

4:08 – 4:10 PM

**Imaging Performance and Radiation Dose of Different Breast Implant Brands****Speaker**

Yu Chieh Lin

4:10 – 4:12 PM

**Computational Phantom of the Vertebral Column for Beta-Source Dosimetry****Speaker**

Mrs Ana Laura Burin

4:12 – 4:14 PM

**Impact of Angulation and Focus Distance on Depth-Specific Radiation Dose: A Comparative Study of Machine Output and TLD Measurements****Speaker**

Ping-Jung Hsieh

4:14 – 4:16 PM

**Dosimetric Comparison of Single-Field and Two-Field BNCT Treatment Planning for Large-Volume Oral Cavity Cancer****Speaker**

Ms Yu-Hsuan Chen

4:16 – 4:18 PM

**Patient Radiation Dose Assessment During Percutaneous Coronary Intervention****Speaker**

Abdullah Almujaally

4:18 – 4:20 PM

**Improved WEPL Accuracy in Discrete Range Modulation Proton Radiography for Head-and-Neck Imaging Using a 3D CNN****Speaker**

Tsz-Yui Chan

4:20 – 4:22 PM

**Application of Texture Analysis in Mammograms for Accurate Detection and Classification of Breast Calcifications****Speaker**

Dr Amjad ALYAHYAWI

4:22 – 4:24 PM

**FLASH-DOSE: Dosimetry for FLASH radiotherapy (European Partnership on Metrology Project)****Speaker**

Jacco de Pooter

4:24 – 4:26 PM

**Effect of Blood Boron Concentration on Dose Distribution and Irradiation Time in Two-Field BNCT Planning for Large-Volume Oral Cavity Cancer****Speaker**

Ms Yu-Hsuan Chen

4:26 – 4:28 PM

**Dose Optimization in Pediatric Conventional Radiography****Speaker**

Hugo Schelin

4:28 – 4:30 PM

**Dosimetric validation of LINAC treatment planning systems in the presence of barium sulfate contrast using Monte Carlo simulations and measurements****Speaker**

Kwo-Ping Chang

4:30 – 4:32 PM

**Comparative Evaluation of Four Shielding Verification Methods for Diagnostic X-Ray Rooms in hospital.****Speakers**

Ms Rasil Almuhanha, Ms renad alsulaiman

5:00 PM

## Wed, June 10

3:30 PM

### Poster session: Coffee break and Poster session (Environmental dosimetry and monitoring, Micro- and nanodosimetry, Dosimetry and radiation protection in nuclear installations and at accelerators)

Session |

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3:30 – 3:32 PM

#### Effect of radiation on the luminescent properties of cerium-doped strontium borate ( $\text{Sr}_3\text{B}_2\text{O}_6:\text{Ce}$ ): A study of dosimetric properties

**Speaker**

Dr JESSICA MOSQUEIRA-YAURI

3:32 – 3:34 PM

#### Evaluation of Cumulative Occupational Exposure and Biological Effects for Cyclotron Workers

**Speaker**

Abdelmoneim Sulieman

3:34 – 3:36 PM

#### Industry-Graded Reactor Pressure Vessel Calculation Scheme: Methodology and Benchmarking

**Speaker**

Ana Jambrina

3:36 – 3:38 PM

#### Results of the impact of the Temelín NPP monitoring on the environment within a distance of 20 km in the time horizon of 25 years

**Speaker**

Jaroslav Klusoň

3:38 – 3:40 PM

#### Estimation of the influence of beaver constructions on environmental contamination in the area of the former Zadní Chodov uranium mine

**Speaker**

Václav Štěpán

3:40 – 3:42 PM

#### Characterization and Validation of Dose-Rate Meters for Pulsed Radiation Fields

**Speaker**

Ms Christina Antoniadou

3:42 – 3:44 PM

#### Radiation protection in the underground radon workplace - Bozkov dolomite caves, case study

**Speaker**

Václav Štěpán

3:44 – 3:46 PM

**Identification and localization of uranium in swipe samples with X-ray fluorescence scanning****Speaker**

Tomáš Trojek

3:46 – 3:48 PM

**High risk of natural radioactivity: two examples from Slovakia****Speaker**

Andrej Mojzeš

3:48 – 3:50 PM

**Experimental study and modelling of radon transfer velocity coefficient between water and air phases****Speaker**

Cristina Trull-Hernandis

3:50 – 3:52 PM

**Development and Metrological Validation of a Low-Dose-Rate Co-60 Calibration System for Environmental Radiation Monitoring based on Spectral Characterization and Spatial Uniformity Assessment****Speakers**

Mr Wei-Han Chu, Prof. Rong-Jiun Sheu

3:52 – 3:54 PM

**HPGe Response to Incremental Lead Shielding for Low- and High-Energy Gamma Rays at the KATANA Activated-Water Loop****Speaker**

Domen Govekar

3:54 – 3:56 PM

**Assessment of Radon Concentrations in Residential Environments in Carambeí and Curitiba, Paraná, Brazil****Speaker**

Hugo Schelin

3:56 – 3:58 PM

**Experimental Assessment of Radon and Radon Progeny Behavior in Relation to Face Mask Use under Controlled Aerosol Conditions****Speakers**

Aina Noverques Medina, Cristina Trull-Hernandis

3:58 – 4:00 PM

**Data driven selection of representative neutron spectra for reference simulated workplace fields using clustering analysis****Speaker**

Sita Gandes Pinasti

4:00 – 4:02 PM

**Latest Development and Implementation of an Extended Surface-Deep Soil Transfer Model for Time-Dependent Environmental Dose Assessment****Speaker**

Francesco Teodori

4:02 – 4:04 PM

**Assessment of Radon Concentration in Well Water, Rocks, and Soil in Carambeí, Paraná, Brazil****Speaker**

Hugo Schelin

4:04 – 4:06 PM

**Measurements of Atmospheric Ionizing Radiation Using MOSAIC and LAMA Detectors****Speaker**

Martina Lužová

4:06 – 4:08 PM

**Characterization of Ionizing Radiation Components in High-Voltage Switching Impulse Discharges Using Passive Detectors****Speaker**

Ondřej Ploc

4:08 – 4:10 PM

**Spatial Prediction of Radon Exhalation Hotspots in Permeable Waste Rock Dumps using Convolutional Neural Networks****Speaker**

Martin Kaschner

4:10 – 4:12 PM

**Radon measurement in Slovak kindergartens and dose assessment from radon passive detectors****Speaker**

Monika Müllerová

4:12 – 4:14 PM

**Cesium-137 in ferns in Czech coniferous forests and its relation to the stable cesium****Speaker**

Mr Václav Procházka

4:14 – 4:16 PM

**Development of a Beam Evaluation Framework for the Preparation of a 30-70 MeV Proton Irradiation Facility****Speaker**

Yu-Tien Tsai

4:16 – 4:18 PM

**Study of natural radioactivity levels in soils of citrus fields in the Valencian region and the impact of flooding****Speaker**

Dr Eva Doménech

4:18 – 4:20 PM

**Experimental dose rate measurements in a synchrotron-based X-ray tomography using commercial OSL detectors****Speaker**

Anna Luiza Malthez

4:20 – 4:22 PM

**Anomalies in radon concentration time series in caves as indicators of tectonic activity: overview and comparison of mathematical modeling approaches**

**Speaker**

Ondřej Kořistka

4:22 – 4:24 PM

**Gamma radiation field modelling in geological profiles: dedicated app development**

**Speaker**

Joanna Rocznik

4:24 – 4:26 PM

**GASTRON Event Catalogue: Multi-Site Characterization of Thunderstorm-Related Gamma Radiation in Europe and Japan**

**Speaker**

Helena Velyčková

5:00 PM