



INTERNATIONAL CONFERENCE ON RADIATION APPLICATIONS

In Physics, Chemistry, Biology,
Medical Sciences, Engineering
and Environmental Sciences

June 10-12, 2024 | University of Granada | Spain | www.rap-conference.org | info@rap-conference.org

CONFERENCE PROGRAMME

Central European Time	Monday, June 10	
08:00–19:00	Registration	Lobby
09:00	Official Opening	Room A: Salon de Grados
Central European Time	Plenary Session Chairperson: Alberto Palma	Room A: Salon de Grados
09:30	Invited talk Marko Andjelkovic, On-Chip Particle Detectors for Self-Adaptive Integrated Circuits for Space Applications	
Central European Time	Oral session Radiation Technologies in Industry and Environment Chairperson: Quentin Crowley	Room A: Salon de Grados
10:20	P. Kump, J. Cabello, J. F. Facetti-Masulli, Geochemical aspect of Caapucu Height at Southeastern Paraguay by X-ray fluorescence and neutron activation analysis	
10:40	 A. Savrasov, V. Zheltonozhsky, D. Myznikov, V. Slisenko, L. Sadovnikov, Determination of the content of ⁹³Zr and ⁹³Mo in NPPs radioactive materials	
11:00	 A. Khutsistova, V. Rozanov, I. Matveychuk, A. Chernyaev, On the issue of taking into account the physical characteristics of radiation sources used in combined radiation technologies for sterilization of bone implants	
11:20	 S. Zolotov et al., Algorithm for reconstruction of electron accelerator beam energy spectrum for high-precision dosimetric planning of radiation treatment	
Central European Time	Oral session Special Session - Radiation Effects Analysis and Fault-Tolerant Design for Space Applications Chairperson: Marko Andjelkovic	Room B: Salon de Conferencias Fisymat
10:00	S. Vairachilai, Z. Stamenkovic, S. P. Raja, Machine Learning Model for Classification of Space Radiation	
10:20	F. Vargas, M. Krstic, M. Andjelkovic, S. Andreev, A. Balashov, M. Ulbricht, J. Chen, Robust Systems and Technology Dissemination for Space Applications: from cross-layer analytics to an open-access reliability framework	
10:40	J. Chen, M. Andjelkovic, M. Krstic, Agile Hardware Development Flow for Radiation-Hardened System in Aerospace Applications	
11:00	R. T. Syed, M. Andjelkovic, F. Vargas, M. Ulbricht, M. Krstic, A survey on multi-level fault injection in ai accelerators	

Central
European
Time

Oral session

Radiation Measurements

Chairperson: Gordana Lastovicka-Medin

Room A: Salon de Grados

17:40

J. Nikolov et al., **Modification of standard LSC method for determination of uranium in water**

18:00

P. Semwal, M. Prasad, V. Ayri, K. Singh, M. Joshi, R.C. Ramola, **Investigation of spatial distribution of natural radioactivity in soil using gamma-ray spectroscopy and its radiological implications**

18:20



F. Cfaraku, I. Bërdufi, E. Spahiu, M. Shyti, **Validation of the method of gross alpha beta radioactivity measurement through international comparisons**

18:40



D. Prifti, K. Tushe, J. Shano, **Natural Radiation Background Assessment and Determination in Tirana District, Albania**

19:00



J. Shano, E. Bylyku, D. Prifti, K. Bode, B. Daci, **Assessing ambient radiation: A comprehensive study of airborne natural radioactivity in Albania**

Central
European
Time

Oral session

Material Science, Radiation Effects, Radiation Detectors

Chairperson: Miguel Angel Carvajal

Room B: Salon de Conferencias
Fisymat

17:40

E. Suraud, J. Kohanoff, L. Stella, P.-G. Reinhard, **A guided tour in the description of irradiation dynamics of molecules and nanoparticles**

18:00

G. Raikova, E. Mihaylova-Dimitrova, T. Malakova, P. Tzvetkov, T. Koutzarova, K. Krezhov, **On the development of carbon-free gas diffusion electrodes to improve the zinc-air rechargeable batteries performance**

18:20

E. Yilmaz, A. Kahraman, U. Gurer, E. Doganci, O. Yilmaz, A. Mutale, **Comparison of the effects of different film coating techniques on the structural and electrical properties of $\text{HfSiO}_4/\text{n-Si}$**

18:40

A. Mutale, S. C. Deevi, E. Yilmaz, **Co-60 gamma irradiation response on the structural and electrical properties of silicon nanowire-based $\text{Al}/\text{SiO}_2/\text{SiNWs}/\text{n-Si}$ MOS devices**

19:00

E. Yilmaz et al., **Determination of electrical parameters of the gallium nitrite based photodiode with simulation**

Central
European
Time

Oral session

Microwave, Laser, RF and UV radiations, Food Irradiation

Chairperson: Zoran Stamenkovic

Room C: Classroom M3

17:40



D. Kuqi, E. Zeneli, M. Kuqali, **The monitoring and assessment of electromagnetic fields near one or more base stations for telecommunication systems**

18:00



M. Vinicius Silva, A. Teles, O. Araujo, A. Paula, D. Oliveira, R. Lopes, **Arborescence in low voltage aluminum electric cable using images generated by X-ray microtomography and COMSOL multiphysics**

18:20



V. Ipatova et al., **Changes in the concentration of volatile organic compounds in foods as indicators of chemical transformations after irradiation**

18:40



M. Chibisova et al., **Effect of ionizing radiation on germination, yield and diseases of wheat in laboratory and field conditions**

19:00



Y. Zubritskaya et al., **Effect of irradiation on the productivity and phytosanitary condition of potatoes**

19:20



T. Popović, J. Ristić Djurović, S. Ćirković, S. Janković, J. Debeljak Martačić, S. Ranković, **Influence of static magnetic field (SMF) of 100 mT on hen egg fatty acids profile**

19:45–21:45

Welcome cocktail – Faculty Garden