



**SIXTH INTERNATIONAL CONFERENCE
ON RADIATION AND APPLICATIONS IN VARIOUS FIELDS OF RESEARCH**

CONFERENCE PROGRAMME

18. 06. - 22. 06. 2018 | Metropol Lake Resort | Ohrid | Macedonia



RAD 2018 

Biomedicine
26

Radiotherapy

Chairperson: Benjamin Zorko

- RR1 Y.-N. Kim, H.-M. Joo, **Reduction of dose estimation error of an artificial neural network algorithm for radiation treatment**
- RR2 S. Song, H. Chun, T. Yu, H.-M. Joo, S. K. Kim, Y. N. Kim, **A study on the optimization strategy of intensity-modulated radiotherapy for prostate cancer**
- RR3 D. Jaroš, G. Kolarević, B. Pavičar, **Dosimetric study on comparison of gamma index in pre-mat treatment verification procedure using Delta4 and portal dosimetry**
- RR4 P. Tulik, M. Tulik, M. Maciak, D. Kabat, J. Lesiak, **Consideration regarding the secondary mixed radiation field around the medical linear accelerator – Measurements with and without an anthropomorphic phantom placed in the radiation field**
- RR5 I. Yakovlev, S. Akulinichev, **Proton therapy: Passive scattering technique improvement**
- RR6 S. Petkovska, Y. Acarbas, M. Ginovska, H. Spasevska, **Small field output factors and their impact in calculation model configuration**

Medical Physics

Chairperson: Benjamin Zorko

- MP1 D. Ćirić, D. Otašević, B. Radojičić, D. Jovanović, G. Nišević, **In vivo verification of entrance dose for head and neck treatments**
- MP2 D. Krstic, D. Nikezic, M. Jeremic, M. Matovic, **Monte Carlo MCNP code in Boron Neutron Capture therapy for several organs of the ORNL voxel phantom**
- MP3 D. Parshkova et al., **Geometric model of hematopoietic sites of human skeleton to be used in bone dosimetry: parameter estimation**

Plenary Session

Invited lectures

Biljana Hall

Chairperson: Gregor Kramberger

09:30

Arkadiusz Mandowski, **Novel methods and development of radiation-induced optically stimulated luminescence (OSL) measurements**

10:00

Peter Bossew et al., **The European atlas of natural radiation**

10:30

A. Pejovic-Milic, **Use of radiation in non-conventional medical diagnostic procedures**

11:00 – 11:30

Refreshments

Oral Session

Radioecology

Biljana Hall

Chairperson: Dharmendra Gupta

11:30

Q. Wu, C. Wang, Z. Cao, Y. Yu, **Overview of NORM industries in China**

11:45

D. Vasilache, R.-Cs. Begy, C. Baciu, **Reconstruction of historical land use changes in Fântânele Lake's area (Romania), based on ^{137}Cs and $^{210}\text{Pb}_{\text{ex}}$ measurements**

12:00

M. Nadri, C. Khiari, A. Ioannidou, **Vertical profile of ^{210}Pb , ^{40}K and ^{137}Cs in Reggane and Ghardaia regions, Algeria**

12:15

O. Günay, S. Aközcan, **Determination of natural radioactivity levels in soil samples in Anatolian district of Istanbul**

12:30

K. Manisa, M. Erdogan, A. Usluer, H. Çetinkaya, U. Işık, L. Sahin Yalcin, **Determination of natural radioactivity in soils from Çorlu Regions in Tekirdağ Province, Turkey**

12:45

M. Zheltonozhskaya, V. Zheltonozhsky, A. Tugay, T. Tugay, A. Chernyaev, **Research of interaction of microbiological component of nuclear fuel contaminated soils with fuel-containing materials**

- 14:45 Lj. Jaukovic, M. Rajovic, M. Radulovic, L. Kandolf-Sekulovic, **Prediction of sentinel lymph node status by patient and primary tumor characteristics in cutaneous melanoma - A single center study**
- 15:00 A. Vasiliev, S. Ermolaev, E. Lapshina, N. Betenekov, E. Denisov, B. Zhuikov, ²²⁵Ac/²¹³Bi generator based on inorganic sorbents
- 15:15 S. Shubeska Stratrova, S. Mishevska Jovanovska, G. Petrovski, M. Zivkovic, **Legs/trunk and arms and legs sum to trunk fat mass indexes determined with dual-energy x-ray absorptiometry in Cushing's and non-Cushing's obese women**

Oral Session

Radiation Physics, Radiation Effects

Kaneo Hall

Chairperson: Roberto Bedogni

- 14:15 M. Zheltonozhskaya, V. Zheltonozhsky, E. Lykova, A. Chernyaev, **Photoactivation method of ¹⁰Be activity measurement in nuclear power point constructions**
- 14:30 T. Chuvilskaya, **Investigations of isomeric cross section ratios for the reactions on ¹⁸⁷Re and ¹⁹⁴Pt targets**
- 14:45 T. Bayram, S. Akkoyun, **Determinations of transition energies and half-lives for photo-nuclear reaction products of some rare earth nuclei**
- 15:00 M.-V. Ilie, T. B. Sava, **Radiocarbon dating applications of accelerator mass spectrometry**
- 15:15 B. Papajani, E. Vataj, A. V. Hasimi, A. Sinanaj, **The study of the influence of additives in the crystallinity of recycled LDPE by IR and XRD analysis**

15:30 - 16:00

Refreshments

Oral Session

Radiation Protection

Biljana Hall

Chairperson: Jordanka Semkova

- 16:00 I. Iorga, **Simulated dose rate calculation for radioactive effluent transport pipes at VVR-S Nuclear Research Reactor from Bucharest - Magurele, Romania**
- 16:15 C. Tuca, A. Stochioiu, R. Deju, **Aspects of the radiological monitoring of the gaseous effluents released in the decommissioning of the biological concrete shielding of VVR-S nuclear reactor**
- 16:30 L. Petrenko, **Geological disposal of radioactive waste in Ukraine: approaches and concepts**
- 16:45 M. Pietrzak, S. Pszona, A. Bantsar, **Nanodosimetry for radiation exposure assessment**
- 17:00 T. Bayram, A. H. Yilmaz, S. S. Yilmaz, Y. Misirlioğlu, A. Kucuk, E. Tutuncu, **On the gamma attenuation of various polymer compounds**
- 17:15 E. Vataj, U. Gjoka, F. Ylli, B. Papajani, **Evaluation of doze rate field of industrial X-ray equipment for NDT**
- 17:30 G. Žauhar, B. Dresto Alač, **Comparison of professional radiation exposures of medical staff covered by personal dose monitoring considering the type of occupation and workplace**
- 17:45 D. Vasovic, S. Musicki, S. Hristov, **CBRN decontamination observed from multiple perspectives**

Oral Session

Radiation Oncology, Cancer Research

Ohrid Hall

Chairperson: Vladimir Jurišić

Keynote talk:

- 16:00 M. Janiak, **Cancer immunotherapy with low-level whole-body exposures to ionizing radiation**
- 16:30 M. Bilski et al., **Abscopal effect of radiotherapy - The pursuit of the unknown**
- 16:45 P. Cisek, D. Kieszko, M. Bilski, I. Kordzińska-Cisek, P. Kozakiewicz, L. Grzybowska-Szatowska, **3D-HDR intraluminal brachytherapy in oesophageal cancer**