



FOURTH INTERNATIONAL CONFERENCE ON RADIATION
AND APPLICATIONS IN VARIOUS FIELDS OF RESEARCH

May 23 - 27, 2016 | Niš | Serbia | rad-conference.org

CONFERENCE PROGRAMME





CONFERENCE PROGRAMME

Sunday, May 22

18:00 - 20:00	Registration	Lobby
---------------	--------------	-------

Monday, May 23

08:00 - 10:00	Registration	Lobby
---------------	--------------	-------

10:00	Official Opening	Amphitheater A
-------	------------------	----------------

10:00 - 18:30	Registration	Lobby
---------------	--------------	-------

10:30 - 11:00	Refreshments	
---------------	--------------	--

Plenary Session Invited lectures Chairperson: Ines Krajcar Bronić	Room A
---	--------

11:00	Luisa Torsi, Organic electronic biosensors for label-free femtomolar protein detection
-------	--

11:30	Ištván Bikit, Low level nuclear spectroscopy in environmental protection
-------	--

12:00 - 13:30	Lunch
---------------	-------

Oral Session Biomaterials, Radiation Effects, Biotechnology Chairperson: Luisa Torsi	Room A
--	--------

13:30	R. C. Popescu, E. Andronescu, A. M. Grumezescu, I. Petcu, D. Savu, Low dose radiotherapy improvement using functionalized magnetite nanoparticles
-------	--

13:45	M. Nesić et al., Photoacoustic characterization of thin polylactide samples of different crystallinity
-------	---

14:00	E. Savchenko et al., Modification of solid nitrogen by an electron beam
-------	--

14:15	Lj. Korugic-Karasz, M. Tonga, P. Taylor, E. Wilusz, P. Lahti, F. Karasz, The thermoelectric energy harvesting systems iodine-doped MEH-PPV with carbon nanotubes
-------	---

14:30	L. Basiricò, A. Ciavatti, T. Cramer, P. Cosseddu, A. Bonfiglio, B. Fraboni, Flexible organic X-ray detectors
-------	---

14:45	N. Kamanina, Refractive properties of bio- and nano-structured materials as indicators of the model matrix macro parameter modification
-------	--

Oral Session**Radiation Protection**

Chairperson: Ištván Bikit

Room B

- 13:30 V. Singh, M. Hauer-Jensen, **The development of gamma-tocotrienol as a radiation countermeasure for the acute radiation syndrome**
- 13:45 Dj. Milkovic, M. Ranogajec-Komor, L. Kavur, **Our experience in dosimetry and radiation protection in pediatric chest X-ray diagnostics**
- 14:00 J. Sabol, B. Sestak, **Education in radiation protection and radiation risk communication with the public**
- 14:15 A. Mladenov, Ts. Nonova, D. Dimitrov, K. Krezhov, **Radioactive waste management at the nuclear scientific and experimental centre of INRNE-BAS**
- 14:30 S. Lovachev, **Estimation of individualized radiation risk of chronic occupational exposure due to inhalation intake of U²³⁴**

15:00 - 15:30

Refreshments**Oral Session****Radiobiology**

Chairperson: Tatjana Paunesku

Room A

- 15:30 N. Koltovaya, N. Zhuchkina, A. Kokoreva, N. Shvaneva, **Kinetics of UV-induced gene and structural mutations**
- 15:45 Q. Tran Minh et al., **Study of DNA damages induced by UV radiation**
- 16:00 N. Kudryasheva, T. Rozhko, O. Guseynov, **On the mechanism of biological activation by radionuclide solutions**
- 16:15 A. Suponkina, M. Zhukovsky, A. Krivonogova, K. Shcherbakova, K. Moiseeva, **Radiation sensitivity of bacteria contaminating food**
- 16:30 Ž. Milosavljević, N. Krstić, B. Mitrović, M. Lazarević Macanović, **Effects of experimentally irradiated pituitary gland on some morphological parameters of rats' head, body and tibia**
- 16:45 S. Zunic, Lj. Rakic, **Petkau effect is a wave phenomenon**
- 17:00 A. Antsiferova, V. Demin, P. Kashkarov, M. Kovalchuk, **Prolonged administration biokinetics of Ag nanoparticles in mammal organisms**

Oral Session**Radiation Measurements**

Chairperson: Gregor Kramberger

Room B

- 15:30 M. Karetnikov, **Application of tagged neutron technology for research, industry, and global security**
- 15:45 S. Akkoyun, G. Koçak, T. Bayram, **Half-lives of the titanium isotopes from photonuclear reactions**
- 16:00 A. I. Apostol, I. A. Maliuk, O. Sima, **Methodological triangulation approach for age determination of plutonium sample by high resolution gamma spectrometry**
- 16:15 S.-K. Park, J.-M. Park, Y.-S. Min, Y.-S. Cho, **Qt-based control platform for the radiation dose data measured in KOMAC**
- 16:30 M. Vasyanovich, A. Ekidin, M. Rogozina, I. Russikh, N. Fomina, **Size distribution assessment of radioactive aerosols at research reactor**
- 16:45 I. Iliev, **Airborne gamma-spectrometry mapping**
- 17:00 J. Madunic, S. Brkic, **Contaminated areas of southern Bosnia and Herzegovina**
- 17:15 A. Mortassim, M. A. Misdaq, A. Chaouqi, J. Ougidi, A. Chaib, **The measurement of ²³⁸U and ²³²Th in petrol, gas-oil and lubricant samples by using nuclear track detectors and resulting radiation doses to the skin of mechanic workers**

17:00 - 18:30

Poster Sessions**Lobby****Radiation protection**

Chairpersons: Kiril Krezhev

- RP1** M. Malek Mohammadi, S. M. Hosseini Pooya, B. Firoozi, **Performance characteristics of a home-made TLD reader; preliminary results**
- RP2** N. Todorović, N. Golubovac, J. Nikolov, M. Krmar, **Structural shielding design for radiographic room by scattered radiation measurement**
- RP3** N. Todorović, S. Lučić, D. Marić, D. Golubović, J. Nikolov, M. Krmar, **Radiation exposure of nuclear medicine staff working with radionuclides ^{99m}Tc and ^{131}I**
- RP4** N. Todorović et al., **Different methods for ^{90}Sr determination in water**
- RP5** J. Ziliukas et al., **Regional East European and Central Asian ALARA Network (RECAN): networking for improving the occupational radiation protection**
- RP6** G. Rosca Fartat, C. Popescu, C. Stanescu, **The horizontal fuel channel in the CANDU 6 nuclear reactor - Part IV: Dismantling main steps with the decommissioning device**

Biotechnology

Chairperson: Natalia Kamanina

- BT1** B. Cekova, V. Bezhovska, I. Limani, F. Jovanovski, **Microbiological composition of dehydrated agricultural products from the Republic of Macedonia**
- BT2** B. Cekova, F. Jovanovski, V. Bezhovska, **The role of microorganisms in the preservation of some gardening products**
- BT3** P. Petrov, V. Markoska, B. Mitrovski, **The influence of foliar fertilizing on some chemical parameters of the broccoli (*Brassica oleracea* L. var. *botrytis*)**
- BT4** S. Petrović, S. Savić, J. Zvezdanović, D. Cvetković, D. Marković, **A lipid microenvironment impact on liposomes with incorporated pigments**
- BT5** S. Savić, S. Petrović, Z. Petronijević, **Immobilization of horseradish peroxidase on hydrophobic carriers**

Biomaterials

Chairperson: Natalia Kamanina

- BM1** G. Ciobanu, O. Ciobanu, **Radio-opaque materials based on hydroxyapatite and bismuth**
- BM2** H. Saito et al., **Gelation of DNA and bovine serum albumin (DNA-BSA gel) by gamma irradiation as bio-absorbent for acridine orange**
- BM3** K. Jusufi et al., **Potential application of apple peels as bio sorbents in the removal of organic molecules from wastewater**
- BM4** K. Jusufi et al., **Removal of dyes from wastewater using plant-based biosorbent derivate from potato peels**
- BM5** J. Halili, A. Berisha, A. Halili, V. Mehmeti, K. Jusufi, T. Demelezi, **Direct (*in situ*) electrochemical determination of supercritical CO_2 extracted ascorbic acid from aqueous solutions onto Pt electrodes**

Radiation Effects

Chairpersons: Natalia Kamanina, Natalia Koltovaya

- RF1** A.-I. Cadis, L. E. Muresan, I. Perhaita, L. Barbu-Tudoran, E. Indrea, **Studies on $\text{ZnS}:\text{Mn}^{2+}$ prepared by microwave-assisted solvothermal decomposition of single-source molecular precursors**
- RF2** J. Budinski-Simendić et al., **The performance assessment of gamma irradiated elastomeric nanocomposites**
- RF3** G. Marković et al., **The high energy irradiation ageing of reinforced elastomers based on rubber blends**

- RF4 S. Jovanović, G. Marković, S. Samaržija-Jovanović, M. Marinović-Cincović, V. Jovanović, J. Budinski-Simendić, **The influence of gamma-irradiation on mechanical properties of nano-silica reinforced ternary NR/BR/SBR rubber blend**
- RF5 A. Barabashov, E. Savchenko, I. Khyzhniy, **Electron-stimulated desorption of excited atoms from solid nitrogen**
- RF6 E. Pereira et al., **Impact of gamma irradiation on the cytotoxic properties and phenolic composition of Thymus vulgaris L. and Menta x piperita L**
- RF7 B. N. Van, Q. M. Tran, D. T. Bang, S. H. Dang, T. H. Phuong, T. N. Thi, **Low molecular weight xanthan prepared by gamma irradiation and its effects on seedlings**
- RF8 Â. Fernandes, A. L. Antonio, M. B. P.P. Oliveira, A. Martins, I. C.F.R. Ferreira, **Gamma radiation preserves chemical and bioactive properties of Boletus edulis wild mushrooms**
- RF9 J. Reszczyńska, L. Dobrzański, K. Fornalski, Y. Socol, **Low dose radiation response: from life span studies to mathematical models**

Radiobiology

Chairperson: Natalia Koltovaya

- RB1 S. Belkina, **Optimizing the efficiency of the sequential thermoradiation therapy in oncology**
- RB2 A. Ylli, I. Stamo, L. Binxhija, **Influence of mutagens on decorative plants**
- RB3 A. Ylli, M. Karcini, L. Binxhija, **Induced mutagenesis applied in bean seeds**
- RB4 L. Binxhija, A. Ylli, **Medical plants in different soils with heavy metals**
- RB5 M. Vujošić, D. Maksin, M. Vujišić, **Microdosimetric simulations for testing cell radiosensitivity**

Biopharmaceuticals

Chairperson: Natalia Koltovaya

- BL1 A. Stankov, S. Gateva, G. Jovtchev, F. Gregan, **The investigation of the antigenotoxic potential of Papaver Rhoeas L. and Salvia Officinalis L. extracts against an oxidative stress inducer**

20:30 - 23:30

Conference Cocktail

Tuesday, May 24

08:00 - 18:00

Registration

Lobby

Oral Session

Radiobiology, Radiation Effects

Room A

Chairperson: Nataša Anastasov

08:30

N. Koltovaya, N. Zhuchkina, N. Shvaneva, **Proton induction of gene mutations**

08:45

S. Vasilyev et al., **Effects of spontaneous γH₂AX level on gene expression in human somatic cells**

09:00

G. Woloschak, S. Raha, T. Paunesku, **Native regulation of micro RNA mmu-miR1195 is necessary for radiation resistance in mouse thymic lymphoma cell lines**

09:15

T. Paunesku, B. Haley, G. Woloschak, **The dose rate effectiveness factor calculations using animal archive data**

09:30

J. Pinela et al., **From the field to the table: Ionizing radiation as a feasible postharvest treatment for fresh and dried plant foods**

09:45

V. Demin, A. Antsiferova, V. Demin, Y. Buzulukov, P. Kashkarov, **Selenium biokinetics study both by terms of nuclear-physical method and numerical modeling**

Oral Session

Radiochemistry,
Radiation and Environmental Chemistry
Chairperson: **Alicia Negron-Mendoza**

Room B

- 08:30 Yu. Demidov, A. Rusakov, A. Zaitsevskii, **Interaction of superheavy elements (copernicium and flerovium) with selenium surface: Relativistic density functional study**
- 08:45 Z. Žukauskaitė, B. Lukšienė, O. Jefanova, **Investigation of Pu (III) sorption by minerals (Wustite/Magnetite and Hematite) and soil from aquatic solutions using Am (III) as an analogue**
- 09:00 V. Pintilie, L.-P. Georgescu, L. Moraru, A. Ene, C. Iticescu, **Natural radioactivity in drinking water from Galati and Vrancea areas, Romania**
- 09:15 A. Banyasz et al., **UV induced one-photon ionization of DNA and oxidative damage**
- 09:30 G.-N. Kim, S.-S. Kim, J.-W. Choi, **The removal of uranium from the contaminated soil by electrokinetic technology**

10:00 - 10:30

Refreshments**Plenary Session**

Invited lectures
Chairperson: **Gayle Woloschak**

Room A

- 10:30 Martin Hauer-Jensen, **Radioprotective properties of tocotrienols**
- 11:00 Marko Markov, **Biophysical bases of magnetotherapy**

Oral Session

Microwave, Laser, RF and UV radiations; Biophysics **Room A**
Chairperson: **Marko Markov**

- 11:30 A. Ponomarenko, **The role of magnetic and electromagnetic interactions in virus infection, implications and new options for medicine**
- 11:45 D. Jelovac et al., **The influence of mobile phones radiation on the occurrence and development of head and neck tumors**
- 12:00 M. Israel, I. Topalova, Ts. Shalamanova, M. Ivanova, V. Zaryabova, **Data of EMF measurements in urban areas with high density of sources and such with "Sensitive places and buildings"**
- 12:15 S. Todosijević, Z. Šoškić, S. Galović, **Measurement of optical and thermal properties of biological tissues and analysis of transport processes in them**
- 12:30 S. Brkić, M. Pinjuh, **Quantum dots as biological markers**

Oral Session

Radiation Detectors
Chairperson: **Alberto J. Palma Lopez**

Room B

- 11:30 E. Yilmaz, S. Kaya, R. Lok, A. Aktag, H. Karacali, A. Jaksic, **Newly-generated Nuclear Radiation Sensing Field Effect Transistor (NürFET) for irradiation detection**
- 11:45 E. Yilmaz, A. Kahraman, D. Yegen, A. Jaksic, **Investigation of RadFET response to X-ray and electron beams in reference conditions**
- 12:00 A. Kahraman, E. Yilmaz, A. Aktag, Ş. Kaya, **A detailed study of the radiation response of Er₂O₃ MOS capacitor under zero gate bias**
- 12:15 A. Jaksic, N. Vasovic, S. Stankovic, **Sensitivity of standard and stacked RADFET dosimeters**
- 12:30 J. Burger et al., **Development of in-vivo diamond and RADFET dosimetry for brachytherapy**
- 12:45 G. Georgiev, V. Kozuharov, L. Tsankov, **Plastic scintillations resembling LED driver**

13:00 - 14:30	Lunch	
	Oral Session Biomedicine, Cancer Research Chairperson: Martin Hauer-Jensen	Room A
15:00	S. Shubeska Stratrova, G. Petrovski, S. Markovik Temelkova, Central obesity index and its estimated values relationship in Cushing's syndrome	
15:15	N. Anastasov, Three-dimensional microtissues as phenotypic models to categorize activity of radiation modifiers	
15:30	G. Sevo, M. Tasic, D. Paspalj, O. Vasovic, A. Milicevic-Kalasic, D. Damnjanovic, Serbian TC Cohort: 2016 Update - Therapeutic use of X-irradiation during 1950s and its delayed health consequences	
15:45	D. Stojiljković, I. Arsić, V. Tadić, Oil extracts of wild apple fruit as active substances in UV protection preparations	
	Oral Session Radiation Detectors, Radiation Effects, Heavy Ion and Neutron Radiation Chairperson: Aleksandar Jaksic	Room B
14:30	M. A. Carvajal Rodriguez, S. Martínez García, D. Guirado Llorente, A. Martínez Olmos, A. J. Palma Lopez, Thermal compensation for DMOS transistors used as real time dosimeters in electron beams	
14:45	G. Georgiev, V. Kozhuharov, L. Tsankov, The PADME tracking system	
15:00	J. Bi, The Body Bias Effects on the Single-Event-Transient of Silicon-On-Insulator CMOS Technology	
15:15	P. Szajerski, A. Gasiorowski, J. Celinska, H. Bem, Radiation effects in sulphur polymer concrete (SPC) matrix under high dose irradiation	
15:30	K. Krezhov et al., BaCe_{0.85}Y_{0.15}O_{3-δ} based materials for solid oxide fuel cells: neutron diffraction study	
15:45	P. Chubunov, V. Anashin, S. Iakovlev, Estimation of heavy ions LET for SEE testing of electronic components using Roscosmos test facilities	
16:00 - 16:30	Refreshments	
16:30 - 18:00	Poster Sessions Biomedicine and Pharmacology Chairpersons: Verica Garay Vrhovac	Lobby
BD1	T. Dzopalic et al., Effect of silicon dioxide enriched water during chronic ingestion of aluminum on functional characteristics of peritoneal macrophages	
BD2	S. Shubeska Stratrova, G. Petrovski, S. Markovik Temelkova, Dual-energy X-ray absorptiometry determined body mass density and its relationship to bone turnover markers	
RG1	R. Radović, M. Perišić, V. Jurišić, Ultrasound to monitor the size of the gallbladder during meals	
PH1	K. Andreevska, D. Grekova, S. Gueorguiev, V. Madjarov, R. Kiskinova, E. Petkova, Penetration of tiotropium bromide on the Bulgarian COPD market	
PH2	E. Petkova, V. Petkova, G. Petrova, S. Gueorguiev, Economic analysis of children with type 1 diabetes on continuous subcutaneous insulin infusion	

Biophysics

Chairperson: **Dušan Mrđa**

- BP1** D. Krezhova, S. Maneva, N. Petrov, A. Stoev, I. Moskova, **Remote sensing of the influence of environmental changes on plant biophysical variables**
- BP2** S. R. De Luka, A. Ž. Ilić, S. Ćirković, D. M. Djordjević, J. L. Ristić-Djurović, A. M. Trbovich, **Static magnetic field effects on biochemical reactions involving reactive oxygen species**
- BP3** S. Mihajlovic, M. Cukavac, R. Čop, V. Antonić, **The solar and magnetic weather- geoeffective impacts**
- BP4** M. Kato, Y. Okubo, **The effect of gamma-ray irradiation on the motility and chemotaxis of Escherichia coli**
- BP5** J. Vujin, Dj. Jovanovic, R. Panajotovic, **Physico-chemical characterization of lipid-2D-materials self-assembly for biosensors**

Biomedical Engineering

Chairperson: **Yong Nam Kim**

- BE1** S. Gajić, S. Ćirković, J. Ristić-Djurović, A. Ilić, D. Djordjević, V. Spasić-Jokić, **Exposure system with homogeneous static and ELF magnetic fields in experimental volume**
- BE2** O. Ciobanu, G. Ciobanu, **An application of kinect based 3D scanning in biomedical engineering**

Cancer Research

Chairperson: **Verica Garay Vrhovac**

- CR1** A. Berman, G. Morozevich, N. Kozlova, N. Gevorkian, **Implication of akt kinase signaling in integrin alpha-2/beta-1 dependent anoikis resistance in human melanoma cells**
- CR2** G. Morozevich, N. Kozlova, N. Ushakova, N. Gevorkian, O. Susova, A. Berman, **Implication of alpha-2/beta-1 and alpha-5/beta-1 integrins in drug resistance of human breast carcinoma cells**

Radiation Oncology

Chairperson: **Verica Garay Vrhovac**

- RO1** R. Mineikyte, V. Atkocius, **Radiotherapy in Lithuania - from Cobalt to LINAC**
- RO2** V. Atkocius, **Second primaries (SP): impact of HDR ^{252}Cf brachytherapy neutron irradiated volume and dose**
- RO3** S. Georgieva, I. Payanova, R. Lazarov, Z. Spassova, I. Apostolova, **Adjuvant radiotherapy of Malignant Triton Tumors (MTT)**

Nuclear Medicine

Chairperson: **Jasna Mihailović**

- NM1** S. Nakamura, **Case study of improved imaging on DAT scan after deep brain stimulation in Parkinson's disease**
- NM2** U. Kara, H. O. Tekin, M. Yıldız, **Clinical experiences with Tc-99m renal scintigraphy**
- NM3** U. Kara, H. O. Tekin, M. Yıldız, **Cardiac nuclear medicine procedures and radiation effects**

Radiotherapy

Chairperson: **Yong Nam Kim**

- RR1** P. Shokrani, M. Khorami, **An investigation of dosimetric characteristics of composite shields for electron therapy: A Monte Carlo study**
- RR2** I. Scarlatescu, A. Chis, M. Spunei, C. Avram, **Dose distribution in ArcCheck under the influence of positioning errors**
- RR3** L. Kastrati, G. Nafezi, G. Shehi, **The penumbra of irradiations in linear accelerators, its use in radiotherapy of cancer diseases, negative effects, and the possibilities of reducing them**

Microwave, Laser, RF and UV radiations

Chairperson: Ercan Yilmaz

- NI1** Z. Podrascianin, Z. Mijatovic, A. Firanj, **Trends of UV index measured in Novi Sad from 2004 to 2013**
- NI2** A. Berisha et al., **The evaluation of the short term photostability of the Alprazolam drug**
- NI3** M. Ivanova, Ts. Shalamanova, M. Israel, V. Zaryabova, H. Petkova, **Occupational and environmental exposure to magnetic fields in residential buildings with built-in transformers**
- NI4** Ts. Shalamanova, M. Ivanova, R. Petrova, I. Topalova, P. Ivanova, M. Dimitrova, **The EMF exposure of the general public after the digitalization of broadcast technology**
- NI5** A. Guridov, E. Deshevaya, S. Shashkovsky, D. Zakharenko, N. Khamidullina, N. Novikova, **The development of pulsed UV units and regimes of air and surface decontamination in a landing module**
- NI6** M. Srećković et al., **Elion techniques in application and in science with accent on ecology and cultural heritage**

Radiation Measurements

Chairperson: Robert Csaba-Begy

- RS1** I. Pliopaité Bataitienė, R. Mikalauskienė, **Investigation of redistribution of artificial (¹³⁷Cs, ⁹⁰Sr) and natural (⁴⁰K) radioisotopes in different usage soils**
- RS2** V. Ivanov, A. Loutchanski, V. Ogorodniks, V. Fjodorovs, **The use of a new generation of silicon photomultipliers in portable gamma radiation scintillator based detectors**
- RS3** T. Hülber, E. Kis, C. Pesznyák, K. Lumniczky, G. Sáfrány, **First validation step of an automatic micronucleus counter: Comparison of manual and automatic micronucleus X-ray dose-effect curves**
- RS4** M. S. Martínez García, A. Palma, J. Torres del Río, F. M. Martí, A. Jaksic, M. Á. Carvajal Rodríguez, **The analysis of the radiation response of electrical parameters of different MOSFET models**
- RS5** N. Antović, S. Andrukhovich, **Asymmetry in experiments testing CPT in ortho-Ps decays**
- RS6** E. Mandowska, R. Majgier, A. Mandowski, **Spectral properties of ultra-week thermoluminescence in selected detectors**
- RS7** M. Długosz-Lisiecka, J. Olszewski, **Intercomparison of selected monitors for Rn-222 activity determination in the air**
- RS8** M. Długosz-Lisiecka, **Collections of radioactive minerals in geological museums**
- RS9** B. Elouardi, M.A. Misdaq, A. Mortassim, **Alpha radiation doses to the eyes of individuals wearing optical glasses**
- RE1** S. Aközcan, M. Yılmaz, F. Külahçı, **Determinations of gamma emitting radionuclides in soil samples from Thrace Region, Turkey**
- RE2** S. Aközcan, M. Beste Öztürk, **Environmental radionuclide determination and radioactivity evaluation of sediment samples collected along the Büyük Menderes River, Turkey**
- RT1** C. Taşköprü, M. Ichedef, M. M. Sac, **Determination of radon concentrations and diffusion coefficients in soils of the Küçük Menderes basin**
- RT2** G. Nafezi, L. Kastrati, G. Hodolli, S. Kadiri, M. Kuqali, M. Bahtijari, **Radon activity concentrations in underground workplaces other than mines in Kosovo**
- RT3** L. Coretchi, I. Plavan, I. Bahnarel, S. Virlan, A. Cojocari, T. Streil, **Control of public exposure to radon in Republic of Moldova**
- RM1** S. Kadiri et al., **Evaluation of X-ray beam quality based on measurements in some medical treatment centers**

20:30 - 23:30

Conference Cocktail

Wednesday, May 25

09:00 - 19:00 Conference Excursion

20:30 - 23:30 Conference Cocktail

Thursday, May 26

08:00 - 18:00 Registration Lobby

Oral Session
Medical Imaging
Chairperson: **Vladimir Jurišić** Room A

08:30 V. Shchedrenok, O. Moguchaya, T. Zakhmatova, I. Zuev, K. Sebelev, **The transformation of the brachiocephalic artery tortuosity at the verticalization of a patient**

08:45 V. Antic, J. Haglund, **Need for revising patient dose protocols in PET medical imaging -based on novel technology improvements**

09:00 M. Dakovic Bjelakovic, D. Stojanov, J. Ignjatovic, J. Popovic, T. Dzopalic, **Evaluation of variability of supraorbital notches and foramina using three-dimensional computer tomography volume rendering**

09:15 J. Popović, M. Daković Bjelaković, J. Gašić, M. Spasić, M. Nikolić, R. Barac, **The mental foramen position in relation to the radiographic apex of the mandibular second premolar**

09:30 H. O. Tekin, U. Kara, O. Ozturk, T. Manici, E. E. Altunsoy, B. Cavli, **Comparison study of clinical measurements and Monte Carlo method on radiation dose rate changes by distance in computerized tomography (CT) facility**

10:00 - 10:30 Refreshments

Plenary Session
Invited lectures
Chairperson: **Olivera Ciraj-Bjelac** Room A

10:30 Renata Longo, **Medical imaging with synchrotron radiation**

11:00 Kei Yamada, **Recent advances in diffusion weighted imaging**

Oral Session
Radiology
Chairperson: **Kei Yamada** Room A

11:30 **Keynote talk:**
J. Mihailović, **FDG PET/CT physical aspects and clinical applications in medicine**

12:00 J. Popić Ramač, V. Garay Vrhovac, **The dynamic MR imaging of mediastinal tumors**

12:15 E. Petrova, **The significance of lung HRCT for the early diagnosis of pneumoconiosis**

12:30 D. Stojanov, J. Ignjatovic, M. Dakovic Bjelakovic, D. Benedeto Stojanov, M. Djordjevic, N. Ignjatovic, **Localisation, diffusion-weight imaging and apparent diffusion coefficient in preoperative assessments of brain abscesses**

12:45 J. Ignjatovic, D. Stojanov, M. Dakovic Bjelakovic, D. Benedeto Stojanov, M. Djordjevic, N. Ignjatovic, **Apparent Diffusion Coefficient (ADC) and localization in determining subtypes of meningiomas**

Oral Session**Radioecology**

Chairperson: Nataša Todorović

Room B

- 11:30 M. Długosz-Lisiecka, **Unusual Po-210 and Pb-210 activity ratios in the air**
- 11:45 M. Rajačić, D. Todorović, J. Krneta-Nikolić, M. Janković, G. Pantelić, N. Sarap, **Radionuclide Loading Indices (RLI) for ^{7}Be and ^{210}Pb in Serbia in 2015**
- 12:00 B. Mitrović, S. Grdović, B. Vranješ, M. Vićentijević, J. Ajtić, D. Sarvan, **Radioecological investigation in the environment of Belgrade city, Serbia**
- 12:15 B. Vranješ, B. Mitrović, V. Andrić, S. Grdović, **Radioactivity in environment of Stara Planina mountain, in area of summer school for mountain animal breeding**
- 12:30 R.-C. Begy, S. Kelemen, B.-D. Burghelle, **The investigation of the sedimentation rate in Cuibida and Isac lakes from the Danube Delta (Romania) by using ^{210}Pb dating methods**
- 12:45 M. Varbeva, P. Kovacheva, **The impact of rapid warming on the bioaccumulation of radionuclides and their transfer within the food chain**
- 13:00 A. Bolsunovsky, D. Dementyev, T. Zotina, M. Melgunov, **The effect of radioactive particles on the Yenisei river ecosystem**

Lunch**Oral Session****Medical Physics, Radiotherapy,
Radiation in Medicine****Room A**

Chairperson: Renata Longo

- 14:30 F. Ghareeb, S. Silva, J. Lencart, F. Borges, J. Santos, **Comparison of measured and calculated out-of-field doses in a paediatric anthropomorphic phantom – out of the body scatter contribution evidence**
- 14:45 T. Hanušová, S. Buryšková, **Impact of calibration curve precision on results of IMRT verification with EBT3 films**
- 15:00 W. Bulski, K. Chelminski, **Nationwide audit of small field output calculations in Poland**
- 15:15 K. Chelminski, P. Sobotka, B. Buczek, E. Gruszczyńska, W. Bulski, **A phantom for brachytherapy treatment planning system verification with the ArcCHECK® device**
- 15:30 J. Sabol, J. Hudzietzová, B. Sestak, **The assessment of the exposure of radiation workers in nuclear medicine in the Czech Republic**
- 15:45 S. Knezevic, B. Matejic, Z. Terzic Supic, P. Bulat, **Exploring risk perception and behavior concerning occupational safety practices among the professionals in radiology services**

Oral Session**Radioecology**

Chairperson: Jelena Ajtić

Room B

- 14:30 D. Dementyev, A. Bolsunovsky, R. Borisov, S. Kosinenko, **Distribution of radionuclides and heavy metals in bottom sediments of the Yenisei River (Russia)**
- 14:45 J. Nikolov et al., **Isotopes ^{3}H , ^{2}H and ^{18}O in ground waters from Vojvodina region**
- 15:00 I. Krajcar Bronić et al., **Ten years of monitoring ^{14}C activity in atmospheric CO_2 and biological samples around the Krško Nuclear Power Plant, Slovenia**
- 15:15 S. Karpenko, **Radiation-epidemiological study of the incidence and mortality of cardiovascular disease among emergency workers of the Chernobyl accident**
- 15:30 M. Cvijovic, S. Stankovic, B. Tanovic, **Validation method for pesticide residue after gamma irradiation**
- 15:45 P. Bossew, G. Cinelli, M. Hernandez, T. Tollesen, M. De Cort, **Gamma radiation from “Radon peaks” – association with factors related to geogenic radiation sources and meteorology**
- 16:00 D. Ganzha, C. Ganzha, **Changes in fractal dimension of *Phragmites australis* leaves under chronic radiation exposure**
- 16:15 D. Kumar Gupta, L. Hamann, C. Walther, **Does nanomolar plutonium concentration generate oxidative stress in *Solanum tuberosum* L. (Potato) plants?**

16:30 - 17:00	Refreshments	
17:00 - 18:30	Poster Sessions	Lobby
	Radiochemistry Chairperson: Yuriy Demidov	
RC1	A. Zlobina, L. Rikhvanov, N. Wang, I. Matveenko, The nature of high soil radioactivity in the Chinese province of Guangdong	
RC2	B. Cetinkaya, S. Inan, Y. Altas, H. Tel, The synthesis of hydrous (Zr-Si)O₂ spheres by the sol-gel method and the investigation of column parameters for simulated waste solutions	
RC3	R. Mikalauskienė, J. Mažeika, Investigation of different radiochemical procedures using Anion Exchange Resin Column for determination of Lead-210 by Liquid Scintillation Counter	
RC4	B. Tenjovic, N. Todorovic, J. Nikolov, I. Stojković, J. Spasojević, Determination of ⁹⁰Sr via Cherenkov radiation on Quantulus 1220 liquid scintillation counter after microwave digestion preparation of milk samples	
RC5	J. Strišovská, D. Galanda, S. Dulanská, J. Kuruc, Separation procedure for the determination of neptunium and plutonium isotopes by extraction chromatography	
RC6	A. Negron-Mendoza, S. Ramos-Bernal, M. Colin-Garcia, A. Heredia, Chemical evolution: An approach from radiation chemistry	
RC7	A. Negron-Mendoza, E. Aguilar-Ovando, J. Cruz-Castañeda, T. Buhse, Radiolysis of aqueous glyceraldehydes at different irradiation temperatures	
RC8	J. Krstic et al., Antibacterial Ag-poly (vinyl alcohol)/ws chitosan hydrogel synthesized by gamma irradiation	
	Environmental Chemistry Chairperson: Jovana Nikolov	
EC1	A. Berisha et al., A comparative study of the organic molecule removal performance of the biosorbents derived from agricultural peels	
EC2	A. Berisha et al., The removal of organochlorine pesticides from the organic or aqueous model system through the adsorption onto covalently-modified carbon powder	
EC3	K. Jusufi, J. Halili, A. Berisha, A. Halili, V. Mehmeti, B. Korça, Determination of heavy metals in numerous rivers in Kosovo during a one-year period	
EC4	J. Halili, A. Berisha, A. Halili, V. Mehmeti, K. Jusufi, Color removal from aqueous solutions containing dissolved organic molecules using the material derived from cucumber peels as a low cost bio-sorbent	
EC5	J. Halili et al., The evaluation of dithizone performance as a complexing reagent for the supercritical CO₂ extraction of heavy metals from aqueous solutions	
EC6	V. Mehmeti, K. Kalcher, F. Podvorica, A. Berisha, Corrosion inhibition of mild steel in aqueous sulfuric acid solution using heterocyclic mercapto compounds	
EC7	V. Mehmeti, K. Kalcher, A. Berisha, F. Podvorica, Experimental and theoretical (DFT/B3LYP) studies on corrosion behavior of some mono and polyhydroxy aromatic derivatives on copper	
EC8	V. Mehmeti, K. Kalcher, A. Berisha, F. Podvorica, The corrosion inhibition performance of the covalently bonded poly(bromophenylene) layers onto mild steel	
EC9	J. Velevska, N. Stojanov, M. Pcovska-Gjorgjevich, M. Najdoski, Visible light modulation using chemically deposited electrochromic thin films	
EC10	M. Mihajlović et al., Effect of KOH activation on hydrochars: FT-IR spectroscopy analysis	
	Radiation Detectors Chairperson: Marko Zavrtanik	
RD1	M. Yüksel, Z. G. Portakal, T. Dogan, M. Topaksu, Luminescence study of neodymium-doped calcium sulfate	
RD2	M. Yüksel, Thermoluminescence properties of anhydrous sodium sulfate	

- RD3** M. Topaksu, M. Yüksel, T. Dogan, **Determination of natural calcium fluorite trap depths**
- RD4** T. Onodera, K. Hitomi, T. Shoji, **Thallium bromide semiconductor crystals grown via vertical traveling molten zone method for fabricating gamma-ray detectors**
- RD5** S. Mallows, **Predicting the radiation levels in the CMS experimental cavern**
- RH1** P. Szajerski, A. Gasiorowski, M. Jakubowska, **Dosimetric behavior of rare earth doped phosphate glasses and polytetrafluoroethylene composites**

Radiation Effects

Chairperson: **Marko Zavrtanik**

- RF10** A. Mandowski, R. Sobota, E. Mandowska, **Investigation of selected ceramic insulators using radiation induced thermoluminescence**
- RF11** E. Yilmaz, R. Lök, S. Kaya, H. Karacali, **Total-dose radiation response of hafnium-silicate MOS capacitors**

Neutron and Heavy Ion Radiation

Chairperson: **Marko Zavrtanik**

- NH1** G. Ryazantsev, M. Khaskov, **Neutron matter and its place in the Periodic system of elements**

Radiation in Medicine

Chairperson: **Parvaneh Shokrani**

- RM2** H. Harrass, M.A. Misdaq, A. Mortassim, **Determination of beta radiation dose to thyroid from the ingestion of radioiodine (^{131}I) by patients for diagnostic and therapeutic purposes**
- RM3** S. Rafajlovic, P. Bozovic, D. Arandjic, S. Ceklic, Dj. Lazarevic, O. Ciraj-Bjelac, **Mammography in Serbia: image quality and radiation dose**
- RM4** A. Petres, S. Stojanovic, P. Bozovic, D. Arandjic, V. Til, O. Ciraj-Bjelac, **Radiation exposure to patients and interventional radiology staff during peripheral vascular angiography and intervention**
- RM5** E. Dautović, U. Suljić, **Radioimmunotherapy in the treatment of cancer**

Medical Physics

Chairperson: **Parvaneh Shokrani**

- MP1** Y. N. Kim, S. K. Kim, **Feasibility of using artificial neural network algorithm to estimate dose distribution for radiation treatment**
- MP2** R. Georgiev, I. Payanova, Z. Spasova, Lj. Iliev, S. Georgieva, R. Lazarov, **CT and MRI image fusion to improve target positioning for Stereotactic Radiosurgery (SRS) treatment planning**
- MP3** N. Jovancevic, B. Andjelic, M. Milakovic, M. Krmar, **New application of unfolding technique in estimation of energy spectra of therapy photon beams**
- MP4** S. Rafajlović, G. Nišević, **Proposal of tests that should be conducted before the treatment, periodically and during radioactive source replacement, with the aim of introducing quality control and quality assurance in brachytherapy**
- MP5** K. Bliznakova, **Development of breast software phantom dedicated for research and educational purposes**
- MP6** R. Longo, R. Padovani, L. Bertocchi, **A medical physics training opportunity for young physicists in Italy**

20:00 - 02:00

Conference Gala Dinner

Friday, May 27

08:00 - 13:00

Registration

Lobby

Oral Session**Radon and Thoron**

Chairperson: Peter Bosew

Room A

- 09:00 F. Cardellini, M. Capogni, L. Quintieri, **The Italian thoron reference measurement system**
- 09:15 M. Mostafa, M. Vasyanovich, M. Zhukovsky, **Prototype of radon concentration standard with closed system**
- 09:30 V. Udovicic et al., **First national indoor radon survey in Serbia**
- 09:45 P. Dembo, Cs. Szabo, Zs. Szabo, P. Volgyesi, **Seasonal and spatial variation of Radon and Thoron in Angolan adobe houses**
- 10:00 J. Vaupotič, A. Brodar, **Exposure to radon and nano aerosol in dwelling of high radon level**

Oral Session**Radiation Physics****Room B**

Chairperson: Wojciech Bulski

- 09:00 A. Selva, V. Conte, P. Colautti, B. Grosswendt, **Experimental nanodosimetry of 25 MeV protons at DNA scale**
- 09:15 D. Mrdja, K. Bikit, I. Bikit, J. Slivka, S. Forkapic, **Optimization of the HPGe detector shield by Monte-Carlo simulations**
- 09:30 Z. Jovanović et al., **The study of the radiation scatter in interventional cardiology through Monte Carlo simulations: The EURADOS working group No.12**
- 09:45 T. Bayram, S. Akkoyun, N. Çelik, E. Hacıislamoğlu, S. Uruk, Ş. Şentürk, **Photo-nuclear reaction products of Xe-131**
- 10:00 R. Panajotovic, J. Vujin, Dj. Jovanovic, **Electron-beam damage from SEM to lipid-(graphene, MoS₂, WS₂) heterostructures**
- 10:15 A. Kozlova, N. Kozlova, E. Zabelina, D. Spasskiy, M. Voronova, K. Shcherbachyov, **Radiation-induced defects and dichroism in La₃Ga_{5.5}Ta_{0.5}O₁₄ crystals**

10:30 - 11:00

Refreshments**Plenary Session****Special Talk****Room A**

Chairperson: Jelena Popić Ramač

11:00

Vladimir Jurišić, Methods for estimation of innate immune system function

11:30 - 13:00

Poster Sessions**Lobby****Radiology**

Chairpersons: Vydmantas Atkocius

RG2 M. Marković, M. Petrović, O. Petrović, D. Marković, T. Nikolić, V. Jurišić, **How may PET/CT really help in the evaluation of presence metastases: The case of liver metastases which is visualized on the basis of CT but not on the basis of PET/CT techniques**

RG3 D. Nikolić, V. Jurišić, **CT for the monitoring of osteoarthritis: a rare localization of the shoulder of a boy aged 12 years**

Medical Imaging

Chairpersons: Vydmantas Atkocius

MI1 Ni. A. Pasare (Tudor), R. Mutihac, **Analysis of susceptibility-weighted images using support vector machine in Parkinson's disease**

MI2 I. Dimitrijevic, D. Mancic, M. Kocic, M. Lazovic, **The role of the infrared thermography in diagnosing the unilateral complex regional pain syndrome type I**

MI3 V. Antic, J. Haglund, **Connections between Noise Equivalent Count Rate and Image Noise in PET Medical Imaging**

- MI4** D. Bulja, D. Stojanov, J. Ignjatovic, M. Dakovic Bjelakovic, J. Popovic, **The incidence of dehiscence of the tympanic segment of the facial nerve canal estimated Computed Tomography**
- MI5** H. O. Tekin, U. Kara, **Analysis of filtering material and effect on x-ray features by using Monte Carlo method for medical imaging applications**
- MI6** H. O. Tekin, U. Kara, T. Manici, O. Ozturk, E. E. Altunsoy, **An investigation on photon beam spectra by considering angular variations and depth dose characteristic for mammography by using MCNP-X**
- MI7** U. Kara, H. O. Tekin, **Estimated radiation risks, clinical factors and patient dose in mammography**

Radioecology

Chairpersons: Alexander Bolsunovsky

- RE3** A. Nikitin, O. Shurankova, O. Popova, R. Korol, **The quantitative assessment of the peroral intake of transuranium elements by the wild hooved animals inhabiting the Polessie state radiation-ecological reserve**
- RE4** N. Shamal et al., **Influence of microbiological preparation EM1 on state of ^{137}Cs in soil**
- RE5** R. Spirov, R. Korol, A. Nikitin, **The substance of transuranic elements in Betula pendula growing in the Polesye state radiation ecological reserve**
- RE6** A. Jr. Dvornik, I. Cheshik, A. Dvornik, **Assessment of air pollution by ^{137}Cs during forest fires**
- RE7** M. Varbeva, P. Kovacheva, **The impact of sharp temperature shift on the water-soluble forms of technogenic radionuclides in different soil types**
- RE8** M. Varbeva, P. Kovacheva, **The influence of the soil organic matter on the migration ability of technogenic radionuclides in different soil types under a sharp temperature shift**
- RE9** J. Ajtić, V. Đurđević, D. Sarvan, E. Brattich, M. A. Hernández Ceballos, **Beryllium-7 specific activity in surface air and its correlation with tropopause height, meteorological variables, potential vorticity, solar zenith angle, and number of sunspots**
- RE10** J. Ajtić, V. Đurđević, D. Sarvan, E. Brattich, M. A. Hernández Ceballos, **Analysis of extreme Beryllium-7 specific activities in surface air**
- RE11** Lj. Janković Mandić, R. Dragović, S. Pisanjuk, S. Dragović, **Natural radionuclides in the soil of Subotica, Serbia: Their distribution and corresponding gamma dose rates**
- RE12** S. Meseldžija, J. Đorđević, Lj. Janković Mandić, A. Onjia, **Population doses from terrestrial exposure in the vicinity of the Kostolac thermal power plant, Serbia**
- RE13** M. Tanić, G. Bačić, Lj. Janković Mandić, **Spatial and depth distribution of ^{137}Cs in soil around "Nikola Tesla A" coal fired power plant, Serbia**
- RE14** M. Janković, D. Todorović, M. Rajačić, N. Sarap, J. Nikolić, G. Pantelić, **Study of radioactivity in environment around power plants TENT A and KOLUBARA due to coal burning for 2015**
- RE15** R.-C. Begy, E. Reizer, A. Timar Gabor, F. Forray, **Different potential systematic uncertainties involved in ^{210}Pb dating method**

Radon and Thoron

Chairpersons: Francesco Cardellini

- RT4** M. Schläger, K. Murtazaev, B. Rakhmatuloev, P. Zoriy, B. Heuel-Fabianek, **Radon exhalation of the uranium tailings dump Digmai, Tajikistan**
- RT5** P. Miklyayev, T. Petrova, A. Marennyy, A. Tsapalov, S. Kiselev, **Experience in mapping geogenic radon potential in Russia**
- RT6** A. Marennyy, P. Miklyayev, A. Tsapalov, T. Petrova, S. Kiselev, **Assessment of potential radon hazard of building sites in Russia**
- RT7** I. Stojković, J. Nikolov, N. Todorović, **PSA discriminator influence on ^{222}Rn efficiency detection in waters by liquid scintillation counting**
- RT8** B. Vuckovic, Lj. Guljan, B. Milenkovic, J. Stajic, G. Milic, **Indoor radon and thoron concentrations in some municipalities in southern part of Serbia**

RT10 Lj. Gulan, B. Milenković, B. Vučković, G. Milić, **Measurements of radioactivity levels in the soil samples from Pristina, Kosovo and Metohija, Serbia**

Radiation Physics

Chairpersons: Radmila Panajotović

RH2 O. Bliznjuk, A. Ogurtsov, **Inelastic scattering, energy loss and channeling of photoelectrons in N₂ doped solid Kr**

RH3 B. Firooz, M. Malek Mohammadi, S. M. Hosseini Pooya, **Allowed and first-forbidden unique beta decay study of ¹⁶N to ¹⁶O in random phase approximation framework**

RH4 G. Ryazantsev, M. Khaskov, **Neutrino resonant interaction as a possible reason of nuclear object accidents**

RH5 S. Milutinović, F. Jeremić, M. Mišić, M. Vujišić, P. Marinković, **Platform dependent efficiency of a Monte Carlo code for tissue neutron dose assessment**

RH6 M. Popovic et al., **A study of gamma-irradiated Poly-L-Lactide by dynamic thermal techniques**

13:00 - 14:30

Lunch

VIRTUAL SESSION

Radiobiology

S. Milyukov, Yu. Lysak, G. Panshin, N. Kharchenko, S. Golub, T. Izmailov, **Clinical radiobiology of infiltrative low-grade gliomas (grade II)**

L. Lioshyna, O. Bulko, S. Pchelovska, A. Berestyanaya, D. Sokolova, **Effect of X-ray on plants and hairy roots of Digitalis Purpurea I.**

N. Hovhannisyan, A. Karapetyan, V. Grigoryan, **Evaluation of endocrine disorders in liquidators of Chernobyl Nuclear Power Plant**

A. Karapetyan, **Immune system assessment of the Chernobyl nuclear power plant disaster consequence liquidators**

D. Firsanov, Lj. Solovieva, V. Soukhov, M. Svetlova, **Radiomimetic drug bleomycin causes different responses in normal young and presenescent Syrian hamster cells**

N. Shimalina, E. Antonova, V. Pozolotina, **Quality of Plantago major L. seed progeny growing within radioactive or chemical contaminated areas**

F. Cutanda, S. Vargas Castrillón, **A mathematical approach to the composition of tumour control probabilities for hypofractionated schedules and replanned treatments**

Radiochemistry

C. Vancea, M. Demeter, I. Calina, A. Scarisoreanu, E. Stancu, E. Badita, **Synthesis of superabsorbent xanthan-reduced oxide graphene hydrogels using electron beam irradiation**

A. Scarisoreanu, M. Demeter, C. Vancea, E. Stancu, E. Badita, I. Calina, **The radiation synthesis and characterization of the network structure of collagen-PVP superabsorbent hydrogels**

Radiation Physics

D. Maletić et al., **Variation of Muon Cosmic Ray flux recorded by Belgrade Cosmic ray station during December 2015 and comparison with European Neutron flux monitors**

Radiation in Medicine

N. Ivanova, S. Ivanova, **Estimation of doses from patients undergoing treatments with radiopharmaceuticals**

V. Sukhov, D. Firsanov, K. Zaplatnikov, **Dosimetry in nuclear medicine (PET/CT)**

Radiation Measurements

- A. Cannuli, E. Calabò, M. T. Caccamo, S. Magazù, **A study of monitoring high frequency electromagnetic field pollution in urban areas**
- A. Cannuli, E. Calabò, M. T. Caccamo, S. Magazù, **Measurements and effects of microwaves radiation emitted by wireless communication devices**
- M. Kuqali et al., **A preliminary study of the distribution of environmental radioactivity in the urban area of Tirana city, Albania**
- S. Vargas Castrillón, F. Cutanda Henriquez, **On the use of a parallel plate ion chamber for FFF photon PDDs measurements**

Radiation Protection

- J. Haglund, **Developing a culture of radiation protection in the hospital environment**
- M. Pourkaveh, **A comparative survey of the awareness level of working doctors and medical students in the Hamadan province concerning the medical response and preparedness in nuclear accidents**
- C. Popescu, G. Rosca Fartat, C. Stanescu, **The horizontal fuel channel pressure tube decommissioning in the CANDU 6 nuclear reactor**
- C. Popescu, G. Rosca Fartat, C. Stanescu, **The horizontal fuel channel pressure tube decommissioning in the CANDU 6 nuclear reactor - Part I: cutting and extracting device presentation**
- C. Popescu, G. Rosca Fartat, C. Stanescu, **The horizontal fuel channel pressure tube decommissioning in the CANDU 6 nuclear reactor - Part II: cutting and extracting device functioning presentation**
- C. Popescu, G. Rosca Fartat, C. Stanescu, **The horizontal fuel channel pressure tube decommissioning in the CANDU 6 nuclear reactor - Part III: operating the cutting and extracting device**

Radioecology

- M. Jakubiak, M. Rykaczewska, R. Stęborowski, G. Bystrzejewska-Piotrowska, M. Asztemborska, **Accumulation of cesium and strontium by mycelia of Pleurotus eryngii in the presence of alumina nanoparticles**
- Yu. Kutlakhmedov, S. Pchelovska, A. Salivon, L. Tonkal, **Issues of synergy and antagonism of radiation and chemical factors**
- D. Joković et al., **A study on natural radioactivity of various environmental samples from the vicinity of the Obrenovac power plant**
- M. Kropacheva, M. Melgunov, I. Makarova, **Isotope contents and transfer factors of ^{137}Cs and ^{90}Sr in biogeocenosis of Yenisei river floodplain**
- T. Paramonova, V. Belyaev, **Cs-137 versus stable K in root uptake from radioactively contaminated soils: Field observations**
- A. Angeleska, E. Dimitrieska Stojkovik, R. Crceva Nikolovska, B. Dimzovska, R. Uzunov, ^{226}Ra , ^{232}Th and ^{40}K in wheat samples with the estimation of the index of radiation risk in the surrounding of the city of Skopje (R. Macedonia)

Radon and Thoron

- A. S. Silva, M. de L. Dinis, A. Pereira, **Assessment of indoor radon levels in Portuguese thermal spas**
- A. Kasić, A. Kasumović, F. Adrović, M. Hodžić, **Radon activity concentration in drinking water in Tuzla City, Bosnia and Herzegovina**
- V. Udrovicic et al., **In-field intercomparison indoor radon measurements in radon-prone areas of Niska Banja, Serbia**

Radiation Effects

- D. Grodzinsky et al., **The effect of acute X-ray irradiation of medicinal plant seeds on the secondary metabolite productivity**
- E. Calabrò, S. Magazù, **Microwave radiation at 1800 MHz induces increase of β -turn and β -sheet features in typical proteins**
- E. Calabrò, S. Magazù, **Reorientation of polymer chains can be produced by extremely low frequency electromagnetic field radiation**
- I. Kovalchuk, M. Gzhegotskyi, V. Dukach, **The impact of radiation on the fatty acid composition of phospholipids of the blood plasma, myocardium and liver tissues of rats**

Medical Physics

- S. Boujemaa, H. Bosmans, F. Bentayeb, **Preliminary study on mammography quality control in Moroccan hospitals**
- J. Haglund, **Shielding requirements for PET/CT using the AAPM Task Report 108**

Radiology

- M. Cherkashin, A. Serov, N. Berezina, G. Lyutyh, D. Puchkov, **Central venous port catheter system implantation navigated by multispiral chest computer tomography**
- V. Kuplevatsky, M. Cherkashin, N. Berezina, N. Vorobyov, A. Mikhailov, **Indications for MRI-guided prostate biopsy**

Nuclear Medicine

- J. Haglund, **Preparing for a clinical drift of PET/CT, an example from Norway**
- M. Firsova, N. Polyakova, O. Kashchenko, **Intermittent usage of zolendronic acid and pamidronate between radionuclide therapy courses**

Radiotherapy

- S. Milyukov et al., **Influence of different radiotherapy parameters on overall disease – specific survival in patients with low-grade gliomas**
- N. Vorobyov, G. Andreev, A. Kalesnik, A. Lyubinsky, **Early results of hypofractionation combined with whole pelvic irradiation for high-risk prostate cancer**

Radiation Oncology

- P. Chakalaroski, V. Klisarovska, I. Stojkovski, J. Djundeva, **Hypofractionated superficial high dose rate brachytherapy in treatment of non-melanoma skin cancers**
- V. Klisarovska et al., **Single institution experience of two-dimensional versus three-dimensional intracavitary brachytherapy in locally advanced cervical carcinoma**
- I. Stojkovski, M. Risteski, V. Klisarovska, P. Chakalaroski, **Comparison of doses and volumes of targets and organs at risk in patients with high grade glioma irradiated with two different techniques**

Cancer research

- S. Milyukov et al., **The impact of predictors on disease-free survival in patients with supratentorial infiltrative low grade gliomas (grade II)**
- E. Kuzmina, T. Mushkarina, T. Konstantinova, **Minimal residual disease can predict response to treatment of lymphoproliferative disorders**
- E. Kuzmina, O. Vatin, M. Kaplan, N. Tkachenko, **Systemic effect of photodynamic therapy for cancer on cytokines level**
- E. Raeisi, S. M. Reza Aghamiri, N. Rahmatpour, A. Bandi, S. A. Kafi-Abadi, L. M. Mir, **The antitumor efficiency of repeated electrochemotherapy with cisplatin on a breast cancer tumor model in mice**

Environmental Chemistry

S. Bijelovic, N. Dragic, E. Zivadinovic, J. Nikolov, N. Todorovic, **Gross alpha and beta particle activities in public wells in the territory of the AP of Vojvodina**

Microwave, Laser, RF and UV radiations

N. Statsyuk, K. Thakur, S. Tatiana, M. Kuznetsova, **Effect of the pre-planting treatment of tubers with low-frequency pulse electric field on some biometric parameters of potato plants**

M. Kuznetsova, N. Statsyuk, A. Rogozhin, A. Filippov, **Low-frequency pulse electric field: a new green technology to improve the yield of vegetable crops**

S. A. Komarova, A. A. Oleshkevich, **The use of UV spectrophotometry for the examination of animal hair**

Medical Imaging

M. Sessa et al., **Suspected adverse reactions to contrast media in the Campania Region (Italy): results from 14 years of post-marketing surveillance**

K. Halavataya, T. Ginko, L. Kalatskaya, **Interactive color image processing in photodynamic therapy**

Medical Devices

O. Bockeria et al., **Modeling of heart kinematics in experiments on the conversion of heartbeats into electrical energy to power epicardial pacemakers**

Biomedicine and Pharmacology

Z. Becker-Kojic, A. Schott, I. Zipancic, V. Hrabaza, V. Herranz Perez, J. M. Garcia Verdugo, **Neuronal differentiation of ACA-generated pluripotent stem cells and their potential application in cell replacement therapy**

E. Kuzmina, T. Mushkarina, T. Konstantinova, L. Krikunova, **Activation status of lymphocytes' subpopulations, apoptosis and the level of circulating regulatory T- cells in the development of reproductive system diseases in women living in radioactively contaminated territories following the chernobyl accident**

E. Kuzmina, S. Zatsarenko, T. Mushkarina, **Combined immunity indicators for differential diagnosis of Hodgkin's lymphoma remission and relapse**

E. Kuzmina, E. Kovalenco, O. Vatin, T. Mushkarina, V. Pavlov, **Tumor associated of stress-induced molecule MICA in the blood can block the activity of NK cells in cancer**

I. Pavlović et al., **The antioxidant capacity of the kidney tissue in patients with renal cell carcinoma**

A. Selimović, S. Milišić, E. Mujičić, **Analysis of cystic fibrosis in Federation of Bosnia and Herzegovina**

Biochemistry

A. A. Oleshkevich, **Enzyme activity and cellular functions modified by ultrasound**

V. Zupunski, V. Spasic Jokic, M. Vasic, A. Savic, Z. Mitrovic, I. Zupunski, **Estimation of uncertainty of trypsin inhibitor activity measurement in legume crops**

Y. Gluhcheva, J. Ivanova, I. Vladov, K. Kamenova, **Subacute cadmium intoxication and subsequent detoxification with chelating agents – a hematological study**

Y. Gluhcheva, E. Pavlova, I. Vladov, **Chronic exposure to cobalt chloride and murine erythrocytes – an in vivo study**

Biophysics

A. A. Oleshkevich, **Growing, biochemical & emissional processes' intensification with modulated ultrasound**

L. Baliulytė, J. Tamulienė, **Theoretical study of threonine molecule fragmentation by low energy electrons**

A. Setrajcic-Tomić, D. Dzambas, Lj. Dzambas, J. Setrajcic, **Optical core-shell model for nano-delivery applications**

Biopharmaceuticals

H. Harbatsevich et al., **Redox-active Copper (II) complexes with 1,2-dihydroxybenzene derivatives**

Biotechnology

A. Grunina, L. Tsvetkova, N. Pronina, A. Recoubratsky, **Investigations on dispermic androgenesis in sturgeon fishes with the use of cryopreserved sperm: experiment on Sterlet and Beluga sturgeons**

V. Katsan, L. Yurkevych, A. Potopalsky, **Izatison and its constituents may induce the changes of some adaptive functions of plants persisting in the next generations after the treatment**

EXHIBITORS



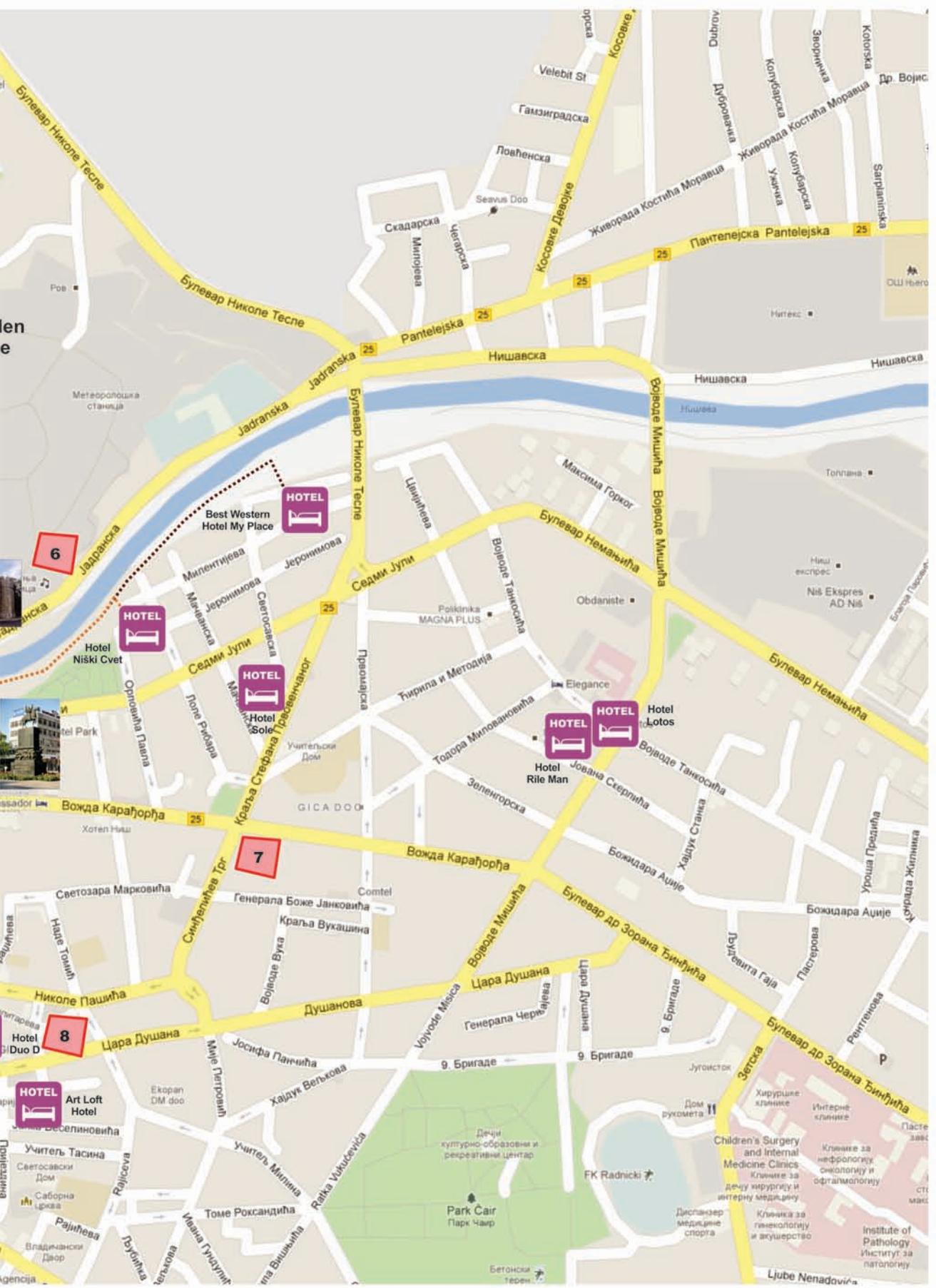
RAD 2016 Conference is supported by the **Central European Initiative (CEI)** and the **Ministry of Education, Science and Technological Development of the Republic of Serbia**.



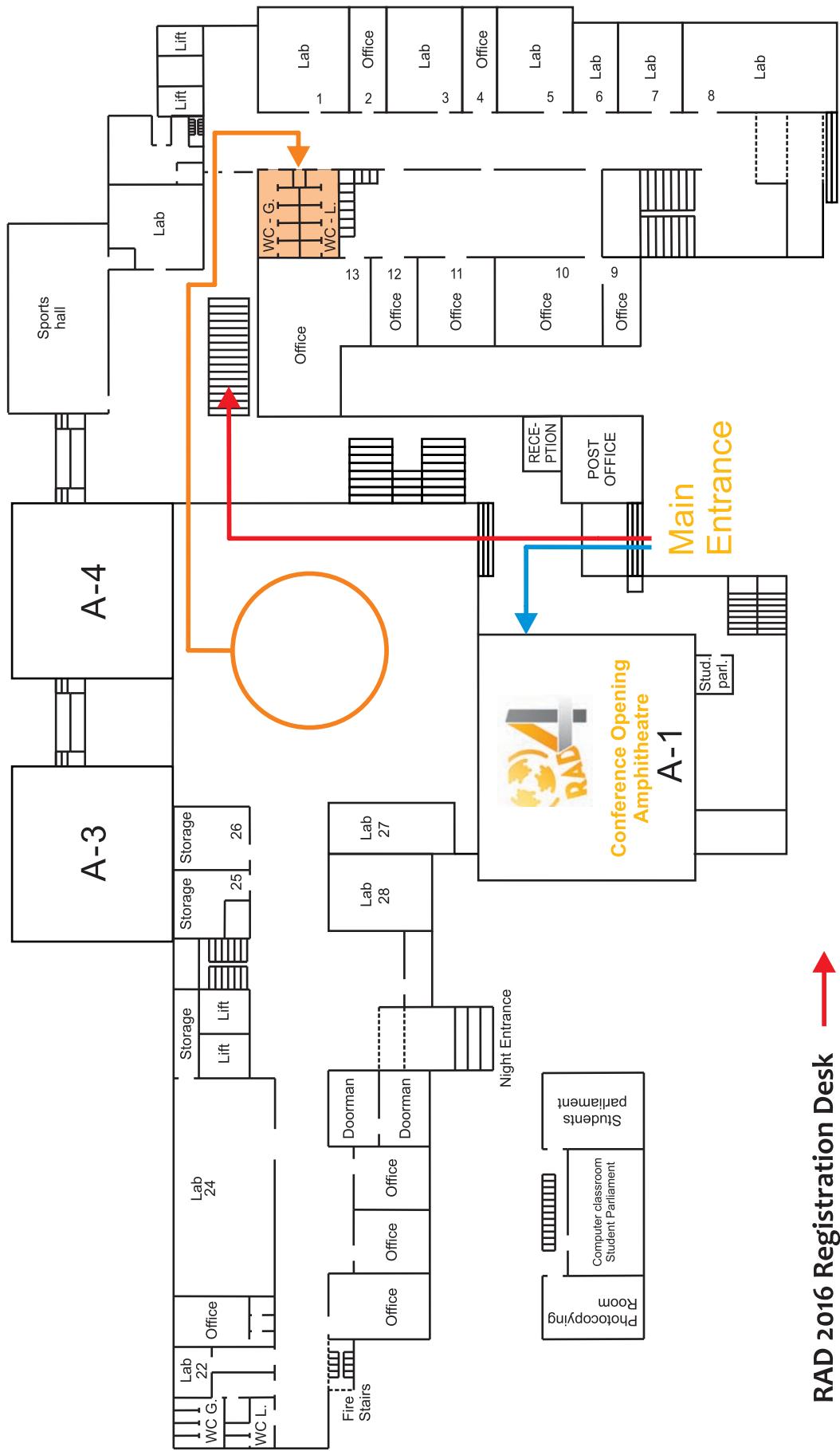
CITY PLAN OF NIŠ

- 1 Forum Shopping Center
 - 2 Kalča Shopping Center
 - 3 University of Niš
 - 4 Irish Pub “Crazy Horse”
 - 5 Sky Café
 - 6 “Gusar” Parking
 - 7 “Dom Vojske Srbije”
 - 8 “Stara Srbija” Restaurant



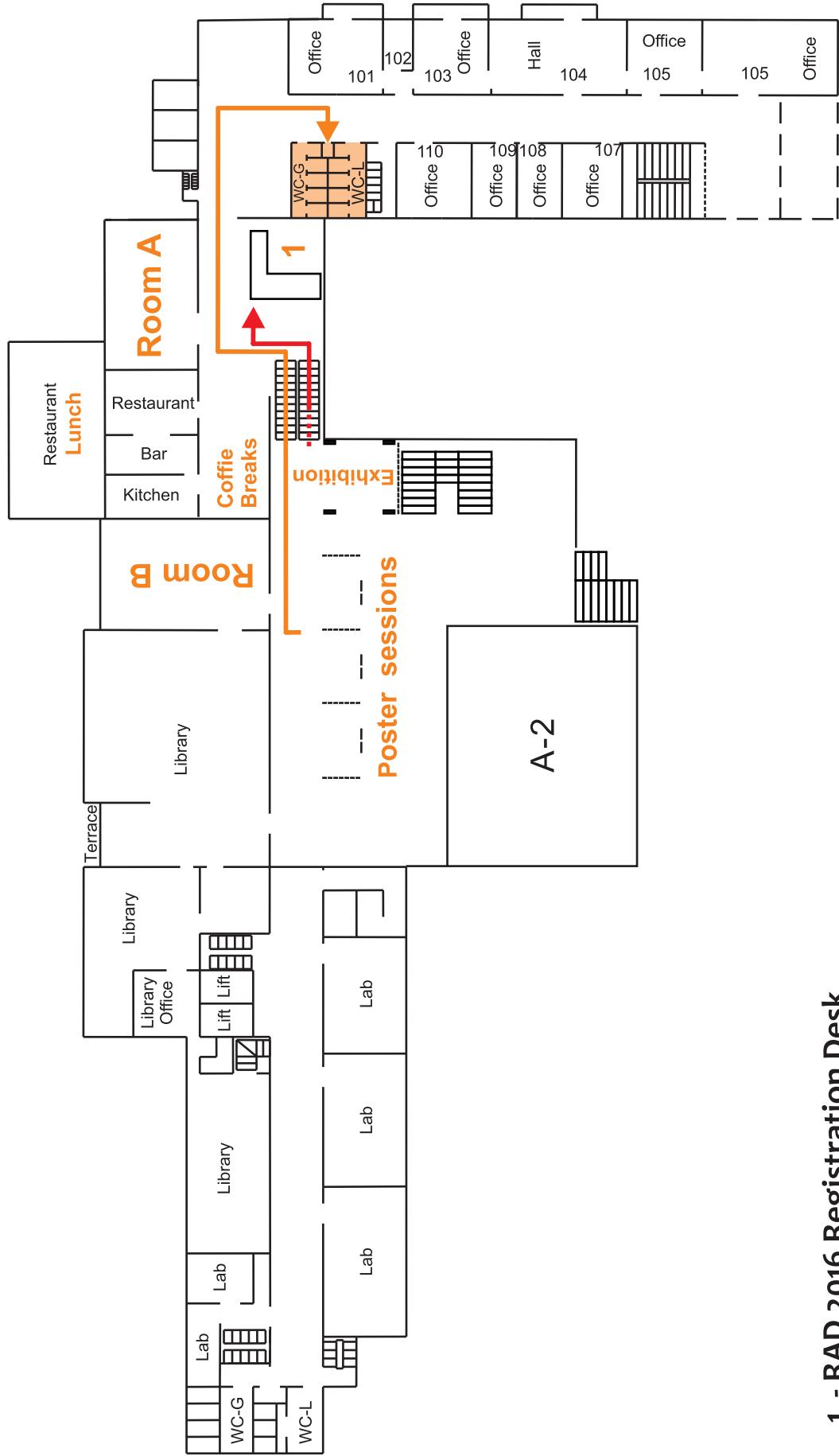


GROUND FLOOR



RAD 2016 Registration Desk

FIRST FLOOR



PREPARED BY Goran Ristić, Jugoslav Karamarković
and Saša Trenčić

DESIGN AND TECHNICAL EDITING Vladan Nikolić

PRINTED BY Sven, Niš

All rights reserved.

Niš, May 2016



rad-conference.org