# Workshop on

# Nuclear Analytical Methods and Applications "NAMA 2010"

Bucharest, Romania, November 3-4, 2010

#### Tuesday, November 2, 2010

17:00 – 19:00	Registration: Hotel IBIS - Palatul Parlamentului, Strada Izvor, Nr. 82-84
20:00	Welcome party: Hotel IBIS

#### Wednesday, November 3, 2010

6:30 - 7:30	Breakfast: Hotel IBIS
	Morning session

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8:30 – 9:00	Registration: Faculty of Physics
9:00 – 9:30	Alexandru Jipa, Cristina Oprea, Alexandru Mihul - Opening of the Workshop
9:30 – 10:00	Georg Steinhauser (Vienna University of Technology) - "Neutron Absorption Activation Analysis"

10:00 - 10:30	Angela Vasilescu (NIPNE-HH) - "Analytical techniques in the NIPNE Applied Nuclear Physics Department: developments, current and future applications"
10:30 – 11:00	Octavian Sima (University of Bucharest) - "Progress in modeling detection efficiency in gamma ray spectrometry"
11:00 – 11:30	Coffee break
11:30 – 12:00	Rares Suvaila (University of Bucharest) - "Paleodose evaluation using gamma ray spectra analysis"
12:00 – 12:30	Elena Stancu (University of Bucharest) - "On homogeneity of volume sources in gamma ray spectrometry"
12:30 – 13:00	Oleg D. Maslov (FLNR, JINR) - "New advances in photon activation analysis methodology"
13:00 – 14:30	Lunch (Faculty of Physics pub, by TravelBiz Agency)

### **Afternoon session**

<ul> <li>Material sciences:</li> <li>Chairpersons: Dr. Melissa Anne Denecke, Dr. Johannes Sterba</li> </ul>	
14:30 – 15:00	Johanes Sterba (Vienna University of Technology) – "NAA in experimental Archaeology"
15:00 – 15:30	Melissa Anne Denecke (INE - FZK Karlsruhe) - "Application of X-ray spectroscopy methods at ANKA to issues concerning nuclear waste disposal"
15:30 – 16:00	Atanas I. Velichkov (DLNP, JINR) - "TDPAC method in condensed matter science"
16:00 - 16:30	Coffee break
16:30 – 17:00	Zhaohui Song (FLNP, JINR) – "Analyzing the linear responses of inorganic crystals exposed to high dose rate by Lissajous figures"

17:00 – 17:30	
18:00 – 19:00	Scientific committee meeting
19:30	Gala dinner: Restaurant "Caru' cu bere"

## Thursday, November 4, 2010

6:30 - 7:30	Breakfast: Hotel IBIS
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# **Morning session**

<ul> <li>Applications in agriculture, medicine and pollution problems:</li> <li>Chairpersons: Dr. Song Zhaohui, Dr. Cosma Constantin</li> </ul>	
8:30 – 9:00	Constantin Cosma (University in Oradea) - "Natural radioactivity - Implications in life and earth sciences"
9:00 - 9:30	Cristiana Oprea (FLNP, JINR) - "Activation analysis methods applied for traceability of pollution trends. Biomonitoring approach"
9:30 – 10:00	Marina V. Gustova (FLNR, JINR) – "Researches of microelemental contents of tomatoes resistant to 'root-knot' nematodes by X-Ray fluorescence analysis"
10:00 – 10:30	Ioan Alexandru Oprea (FLNP, JINR) – "PCA based neural network used in interpretation of data sets obtained in multielemental analytical measurements"
10:30 – 11:00	Carmen Varlaam (ICSI, Rimnicu Vilcea) – "Low level tritium measurements in environmental water sampoles by liquid scintillation counting"
11:00 – 11:30	Coffee break

	♣ Poster session:
11:30 – 12:00	<ul> <li>Anatoly G. Belov (FLNR, JINR) – Microtron MT-25</li> <li>Cristiana Oprea (FLNP, JINR) – Microanalysis investigations of human teeth</li> <li>Pavel V. Sedyshev (FLNP, JINR) - On the possibility of use of the neutron spectroscopy methods for elemental/isotopic analysis at IREN</li> <li>Oleg D. Maslov (FLNR, JINR) - "New advances in photon activation analysis methodology"</li> <li>Ioan Stefanescu, Marian Curuia (ICSI RO) - Vacuum technology by ICSI employed at the reactor IBR-2</li> <li>Mirela Niculescu (Craiova University) - XRF of medicinal herbs of Bucegi Mountains</li> <li>Alecsandru Chirosca (Dept of Nuclear Physics, UB) - Radiological Protection Research Center</li> <li>Mariana Nicolescu (Valahia University) - Neural network modeling of elemental content in human biosubstrata</li> <li>Constantin Cosma (Babes-Bolyai University) - Estimation of environmental radionuclide concentration in soils, a comparison of high resolution gamma spectrometry, alpha spectrometry and instrumental neutron activation methods</li> <li>Sanda Filip (University in Oradea) - Monitoring of atmospheric pollution in Transylvania regions. Public health and risk factors</li> <li>Silvia Coroian (IOCN Cluj-Napoca) - Elemental content of herbal tea used in treatment of several diseases</li> </ul>
12:00 – 12:30	♣ Round table
12:30 – 13:30	Lunch (Faculty of Physics pub, by TravelBiz Agency)

13:30 – 17:30	Excursion (Bucharest tour by bus and visit of Village Museum by TravelBiz Agency)
17:30	Closing of the Workshop