

12th International School and Symposium on Synchrotron Radiation in Natural Science

The 12th International School and Symposium on Synchrotron Radiation in Natural Science (ISSRNS 2014) will be held on 15-20 June 2014 in a conference center located in Mazovia, the historical province in the central part of Poland surrounding Warsaw. The exact venue will be specified in autumn 2013.

The ISSRNS 2014 is the next one in a series of biennial meetings organized in Poland since 1992.

This time, it is organized by the Polish Synchrotron Radiation Society together with two institutes: Institute of Physics, Polish Academy of Sciences in Warsaw and National Centre for Nuclear Research in Świerk, with a substantial support within the EU Grant EAgLE/REGPOT. The ISSRNS meetings have traditionally been devoted to recent advances and new techniques employing synchrotron radiation (SR) in physics, chemistry, materials science, crystallography, biology and medicine as well as in the fields of archaeometry, environmental protection, geology, quality control, etc. The aim of this interdisciplinary meeting is also to bring together scientists working with synchrotron radiation and those who would like to learn more about the sources and specific experimental techniques. The meeting has a format of advanced workshop covering recent developments of synchrotrons and short-wavelength free electron lasers and providing a forum for reporting the most recent achievements in fundamental and applied research. Several introductory and tutorial lectures addressed to young researchers (M.Sc. and Ph.D. level), as well as to new potential users of the synchrotron radiation are foreseen.

The year 2014 has been declared by the United Nations as the International Year of Crystallography, the discipline, whose progress is strictly related to the development of modern SR sources - synchrotrons and short-wavelength FELs. In Poland, the first national synchrotron SOLARIS in Krakow is under construction, to be operational in late 2014. A concept of POLFEL, the Polish free electron laser proposed to be constructed in Świerk also reaches its maturity. These facts will pronouncedly influence the programme of the incoming meeting beyond its traditional topics to cover interests of

the SR community of users, designers and constructors of the new synchrotron sources.

The program of the meeting will include:

- X-ray diffraction: methods and applications,
- Macromolecular crystallography,
- Structure solution in nano- and micro-scales
- Elastic scattering of X-rays,
- Synchrotron radiation in nanoscience,
- Imaging, holography, spectroscopic mapping,
- X-ray absorption, fluorescence and photoelectron spectroscopies,
- X-ray magnetic dichroism,
- Synchrotron radiation at long wavelengths (THz, IR and VUV),
- Synchrotron radiation in life sciences and medicine,
- Novel applications of Free Electron Lasers,
- Synchrotron and alternative radiation sources – new developments and instrumentation,
- Advanced optics, irradiation damage and metrology of intense beams,
- And many other...

The abstracts of all contributions presented at ISSRNS will be published in a volume of Synchrotron Radiation in Natural Science, and the proceedings in a reputable international journal.

The official language of the Meeting is English.

The Organizers cordially invite all contributors interested in the synchrotron radiation and its application to participate in ISSRNS 2014.

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