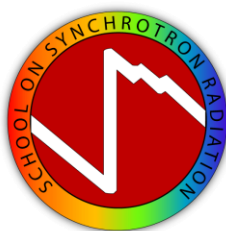


13th School on Synchrotron Radiation: Fundamentals, Methods and Applications

Grado (Italy), 14 – 25 September 2015

FIRST ANNOUNCEMENT



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The Italian Synchrotron Radiation Society (SILS), www.synchrotron-radiation.it, is proud to announce the 13th edition of the School

“Synchrotron Radiation: Fundamentals, Methods and Applications”

organized in collaboration with Elettra – Sincrotrone Trieste (www.elettra.eu).

This edition of the school will be held in Grado (Italy) from the 14th to the 25th of September, 2015. Grado is a pleasant seaside resort town close to Trieste, where ELETTRA, the Italian 3rd generation synchrotron radiation facility, and FERMI@ELETTRA, the new seeded Free Electron Laser source, are located.

This edition of the school is partially supported by:

- the International Union of Crystallography (IUCr, www.iucr.org);
- SIMDALEE2, a Marie Skłodowska - Curie Initial Training Network - Grant number 606988 funded under FP7-PEOPLE-2013-ITN, www.simdalee2.net/;
- COST Action MP1306 EUSpec (euspec.eu);
- Consorzio per la Fisica – Trieste (www.conorzio-fisica-trieste.it).

Aims of the School

The School will give a general overview of the characteristics of Synchrotron Radiation to graduate students and young researchers interested in its use. The emission of Synchrotron Radiation both from storage rings and from free electron lasers, its properties, most of the experimental methods used, their fundamentals and applications in Physics, Chemistry, Biology, Earth Science, Material Science and Medicine will be illustrated. Hands-on experiments and data analysis sessions on some of the Elettra beamlines are included.

The lecturers will be given by well-known scientists with long standing experience in the use of synchrotron radiation in each specific field; lectures will be given in English. The main topics will be:

- Production and properties of Synchrotron Radiation;
- Free electron lasers;
- Basics of the interaction between matter and radiation;
- X-ray Absorption Spectroscopy (EXAFS and XANES);
- X-ray Diffraction (single crystal and powder diffraction, anomalous scattering);
- Small angle X-ray scattering;
- X-ray Microscopy;
- Photoemission (from valence and from core levels; angular, time and spin resolved);

- IR spectroscopy and microscopy;
- Imaging;
- Resonant spectroscopy and diffraction;
- Inelastic X-ray scattering.

Applications in the fields of materials, nanoscience, magnetism, catalysis, earth science, environmental science, cultural heritage, biology and medicine will be presented.

All participants will receive a copy of the book *Synchrotron Radiation: Basics, Methods and Applications*, S. Mobilio, F. Boscherini and C. Meneghini editors, Springer (2015).

Participants are encouraged to present a poster on their research activity and interest in synchrotron radiation in order to foster exchange of ideas and collaborations among participants. The detailed programme of the lectures will be available on line at WEB site: <http://www.elettra.eu/XIIISILS/>

The first seven editions of the School were organized by SILS at S. Margherita di Pula in Sardinia, the 8th one at Frascati National Laboratory of INFN, the following three editions in Duino near Trieste and the last one at Grado, the same location as the present edition. The programme of the previous editions and other relevant material can be found at www.synchrotron-radiation.it.

Applications

Participants will be limited to 50. To apply, please submit the application form (shortly available at <http://www.elettra.eu/XIIISILS/>) by May 31st, 2015 and upload a short one page curriculum. Participants will be selected on the basis on their curriculum; priority will be given to Ph.D. students and to young researchers.

The registration fee of 250 € includes the attendance to the lectures, a copy of the book containing the lecture notes (see above) and transportation to Elettra for the practical sessions. Details on the payment procedures will be provided in the near future.

Deadlines

31/5/2015: Submission of application forms.

30/6/2015: Notification of acceptance.

31/7/2015: Payment of registration fees and confirmation of accommodation.

"Carla Cauletti" Fellowships

As in the previous editions, SILS will grant some fellowships to facilitate participation to the School. Fellowships are entitled to Carla Cauletti, an Italian chemist who pioneered the use of synchrotron radiation. Fellowships will cover the registration fee and, in exceptional cases, part of the accommodation costs. Fellowships will be assigned to PhD students on the basis of their curriculum. If you wish to apply for the "Cauletti" fellowships please mention it in the application form.

IUCr Fellowships

The International Union of Crystallography has allocated some funds to cover travel and subsistence costs for young scientists (graduate students, post-graduate students or post-doctoral fellows with a maximum age of 30) from developing countries. If you wish to apply for the IUCr fellowships please mention it in the application form.

Location

Hotel Fonzari, P.zza Biagio Marin - 34073 Grado (Gorizia - Italy) (<http://www.hotelfonzari.com>)

Accommodation

Accommodation is strongly recommended at Hotel Fonzari, (Tel. +39 0431.876360 - Fax +39 0431.877746, e.mail: info@hotelfonzari.com).

The participants of the School will have a special rate of 55.00 € /person/day in double room and 90.00 € /day in single room, breakfast and dinner included.

Participants are expected to cover accommodation expenses themselves.

Hotel accommodation at the Fonzari Hotel should be requested via the application form; accepted students will have to confirm the accommodation by 31/7/2015.

Contacts

For additional information, please contact the school secretariat by e-mail (elena.cantori@elettra.eu)

Weather

In September the weather in Grado and Trieste is generally pleasant, with a mean temperature between 15 °C and 23 °C.

INTERNATIONAL UNION OF CRYSTALLOGRAPHY Scientific Freedom Policy Statement

The Organizing Committee of the SILS School shall observe the basic policy of non-discrimination and affirms the right and freedom of scientists to associate in international scientific activity without regard to such factors as ethnic origin, religion, citizenship, language, political stance, gender, sex or age, in accordance with the Statutes of the International Council for Science.

At this school no barriers will exist which would prevent the participation of bona fide scientists.