



The Abdus Salam
**International Centre
for Theoretical Physics**
50th Anniversary 1964–2014

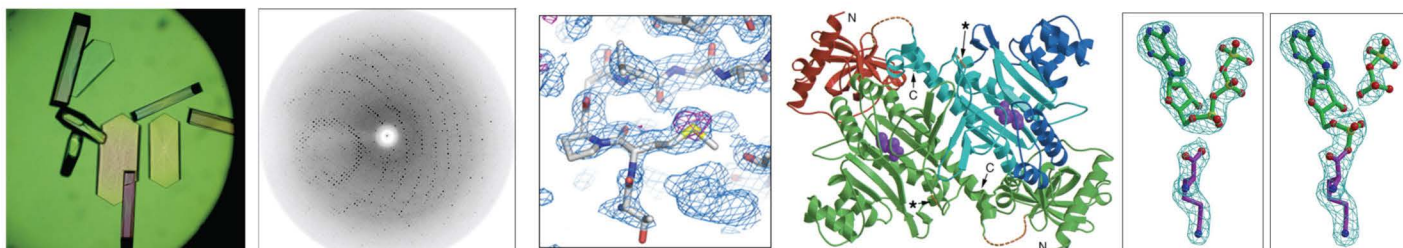


Advanced Workshop on Structural Biology: using Synchrotron Radiation to Visualise Biological Molecules

(15 - 19 December 2014)

Miramare - Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics (ICTP, Trieste, Italy), is organizing an **Advanced Workshop on Structural Biology: using Synchrotron Radiation to Visualise Biological Molecules** to be held at the ICTP from **15 - 19 December 2014**.



The objective of this Workshop is to expose the participants to the methodologies used to solve macromolecular structures, using synchrotron radiation X-ray diffraction and scattering techniques. Structural biology is an interdisciplinary research area, requiring expertises from both the life sciences and the physical sciences, so it is often difficult to educate and train young scientists with the necessary breath of experience. The Workshop is meant to provide a comprehensive overview of the state of the art in the fields of macromolecular crystallography and small-angle X-ray scattering, and aims to bridge the gap between physics and biology by covering the entire process, starting from the gene to obtain the atomic structure. A few practical sessions will provide the students with some hands-on experience in some of the subjects covered by the lectures.

This event is part of a joint initiative between ICTP, IAEA, Elettra and SESAME, the Middle East Synchrotron Radiation facility in Jordan.

Topics will include:

**Protein production;
Crystallization;
MX data collection and processing;
MX structure determination;
Refinement;
Model building;
SAXS data collection and structure determination;
Complementary techniques.**

Hands-on sessions will include:

**Crystallization;
Synchrotron data collection;
Data processing;
Refinement & Model building.**

PARTICIPATION:

Scientists and students from all countries that are members of the United Nations, UNESCO or IAEA may attend the Workshop, with particular emphasis on scientists coming from countries that are active members of the SESAME consortium. As it will be conducted in English, participants should have an adequate working knowledge of this language. Although the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by the home institution. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants, who are nationals of, and working in, a developing country. Such support is available only for those who attend the entire activity. There is no registration fee.

HOW TO APPLY FOR PARTICIPATION

An Online Application Form can be accessed through the Workshop website:

<http://agenda.ictp.it/smr.php?2578>

Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the Application Form

(Due to logistic laboratory reasons this activity has "Limited Participation")



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Trieste, May 2014

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INVITED SPEAKERS:

Burcu KAPLAN-TURKOZ
(Ege University, TR)

Doriano LAMBA
(Istituto di Cristallografia CNR, Trieste, IT)

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(NKL, Amsterdam, NL)

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(SIUE, USA & Cairo University, EG)

**Deadline for
requesting participation:**

1 AUGUST 2014