

# Joint ICTP-IAEA Advanced Workshop on Future Trends in Multidisciplinary Ion Beam Analysis



**10 - 14 October 2022**  
**An ICTP-IAEA Hybrid Meeting**  
**Trieste, Italy**

Further information:  
<http://indico.ictp.it/event/9832/>  
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Modern analytical methods are being developed very rapidly and in the synergistic cluster of Ion Beam Analysis (IBA) methods. These techniques have proven to be extremely powerful spectroscopic tools, often providing complementary information on the structure and composition of materials.

## Description:

The workshop will provide an advanced training and information exchange platform both for early-stage and experienced researchers actively working in the field. Recent advancements in accelerator technology and detection systems, novel applications and combinations of analysis tools as well as software developments and artificial intelligence for IBA will be covered. Beside theoretical lectures, practical sessions on advanced data evaluation with GUPIX, SIMNRA, Multi-SIMNRA and WINDF will be included.

With the increasing demand to respond to the economic and societal challenges; the workshop will have a dedicated part on creative thinking, networking, research infrastructures and strategies for efficient operation and upgrade of accelerator facilities.

The participants will have an opportunity to present and discuss their results in a poster session. Visit of Sincrotrone Elettra will be involved.

## Topics:

- Recent advances in accelerator technologies
- High spatial resolution analysis; 2D and 3D elemental mapping
- Synergistic treatment of data from multiple analytical techniques
- Artificial intelligence for Ion Beam Analysis
- Applications and case studies from materials science, biology-biomedicine, forensics, environmental science, art and archaeometry
- Practical exercise:
  - Advanced use of GUPIX, SIMNRA, Multi-SIMNRA, WINDF
  - Creativity Enhancement for Innovation
- Strategies for efficient operation and upgrade of accelerator facilities
- National and Transnational Research Infrastructures and Networking

## Directors:

A. SIMON, IAEA, Austria  
R.P. WEBB, University of Surrey, UK

## Local Organiser:

S. SCANDOLO, ICTP, Italy

## Speakers:

I. CAMPBELL, University of Guelph, Canada  
J. COLAUX, University of Namur, Belgium  
T.F. DA SILVA, University of São Paulo, Brazil  
L. GIUNTINI, University of Florence, Italy  
A. LOMBARDI, CERN, Switzerland  
M. MAYER, Max-Planck-Institute for Plasmaphysik, Germany  
T. OSIPOWITZ, National University of Singapore, Singapore  
F. ZANINI, Elettra - Sincrotrone Trieste, Italy

## How to apply:

Online application:  
<http://indico.ictp.it/event/9832/>

Female scientists are encouraged to apply.

## Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

## Deadlines:

**15 August 2022**

Applications needing financial support and/or visa

**7 September 2022**

All other applications



The Abdus Salam  
International Centre  
for Theoretical Physics  
[www.ictp.it](http://www.ictp.it)  
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