

International Conference on Accelerators for Research and Sustainable Development: from good practices towards socioeconomic impact



Monday, 23 May 2022 - Friday, 27 May 2022

IAEA Headquarters

Themes, Topics and Structure

The IAEA welcomes high-quality, well structured, abstracts and papers in all fields of accelerator-based research and applications which will be grouped under three main themes/tracks:

- A. Cutting-edge scientific results and innovation in applications
- B. Success stories and case studies demonstrating socioeconomic impact
- C. Best practices in effective management, safe operation, and sustainability of accelerator facilities, including establishment of new facilities

The scope of the conference is meant to cover, but is not limited to, the following topical areas:

- **Biology and biophysics**
- **Cultural heritage**
- **Engineering applications (including energy sector)**
- **Environmental applications (including geosciences and climate change)**
- **Food and agriculture**
- **Forensics and security applications**
- **Information and quantum technologies**
- **Materials research (including materials damage studies)**
- **Medical applications (including radioisotope production and Boron Neutron Capture Therapy)**
- **Nuclear data and modelling benchmarks**
- **Radioactive beam applications**
- **R&D on new accelerator and alternative technologies (including Compact Accelerator based Neutron Sources)**
- **Best practices in and lessons learned from**
 - Education and training with accelerators
 - Establishment of new facilities
 - Facility management and user programmes
 - Facility operations and maintenance
 - Outreach, knowledge preservation and management
 - User access programmes and regional/interregional networking
 - Strategic considerations for sustainability and self-reliance

The aforementioned topical areas will be discussed under the three main themes outlined. A series of plenary sessions will address the most interesting and crucial topics and the meeting programme will include invited keynote speakers from academia and industry, giving oral presentations and participating in panel discussions and round table sessions. Several poster sessions will be organized to allow ample time for discussion and interaction. In addition, the participants will have an opportunity to interact with conference exhibitors and participate in technical tour(s). Finally, a closing panel session will review the main conclusions drawn in the plenary sessions and will summarize recommendations for the future development of radiation sciences and technologies using particle accelerators.

Cutting-edge scientific results and innovation in applications

Success stories and case studies demonstrating socioeconomic impact

Best practices in effective management, safe operation, and sustainability of accelerator facilities, including establishment of new facilities

R&D on new accelerator and alternative technologies

Accelerator applications in medicine, biology and biophysics

Accelerators for materials research

Accelerators forensics science and materials research

Best practices in operating and using accelerator facilities

Engineering applications

Cultural heritage

Nuclear data studies

Environmental applications

Accelerators for food and agriculture

Safety and regulatory aspects

Invited Talk