

First Announcement for the Twelfth International Topical Meeting on Nuclear Applications of Accelerators (AccApp'15)

AccApp'15 is the twelfth in a series of international topical meetings organized by the Accelerator Applications Division of the American Nuclear Society (ANS) and the International Atomic Energy Agency (IAEA). AccApp'15 will convene in Washington, DC, November 10-13, 2015. AccApp'15 will take place at the Marriott Wardman Park Hotel, the same venue as the 2015 ANS Winter Meeting.

You are cordially invited to participate in AccApp'15 by submitting a contributed paper and making an oral or poster presentation. For further information and deadlines, please see <http://www.ans.org/meetings/m_145>. The deadline for abstract submission (200 word limit) is June 12, 2015. Details on registration can be found on the same website.

The purpose of these topical AccApp meetings is to present a world stage for discussing nuclear applications of particle accelerators. Meetings are focused on the production and utilization of accelerator-produced neutrons, photons, electrons, and other particles for scientific and industrial purposes; production or destruction of radionuclides significant for energy, medicine, defense, or other endeavors; homeland security applications; as well as medical imaging, diagnostics, and therapeutic treatment.

One of the great strengths of the AccApp set of meetings is providing an international forum for disseminating knowledge on the applications of accelerators. The conference provides a platform where nuclear engineers, nuclear physicists, and accelerator physicists can meet and discuss their research. Further, the AccApp meeting series provides a great opportunity for international experts to discuss the latest research and to form collaborations to solve common problems across disciplines.

Applications of particle accelerators cover a broad range of areas, from strategic and applied research, safety and security, environmental and medical applications, materials research and analytical sciences, to radioisotope production and radiation processing. Accelerator-based radiation sources are increasingly important in the understanding of irradiation effects in materials for nuclear reactor technologies and for fusion applications. Neutrons from accelerator-driven systems coupled to subcritical assemblies, moreover, may be the next source of reliable and safe nuclear energy.

The suite of topics for AccApp'15 with the associated organizers is detailed on the next page.

General Chair: Philip Cole (Professor, Idaho State University; Pocatello, ID, USA) and
General Co-Chairs: Ralf Kaiser (Section Head of the Physics Section, Division of Physical and Chemical Sciences, Department of Nuclear Sciences and Applications, International Atomic Energy Agency; Vienna, Austria) and Bradley Micklich (Senior Physicist, Argonne National Laboratory; Lemont, IL, USA)

Program Chair: Andrei Afanasev (Associate Professor, George Washington University; Washington DC, USA) and

Program Co-Chairs: Alexander Ryazanov (Head of Laboratory, Professor, National Research Center "Kurchatov Institute"; Moscow, Russia), and Prof. Alex C. Mueller (Research Director CNRS and Paris South University, IPN Orsay, France)

LIST of TOPICS

1. Accelerator Facilities

Andrew Hutton (JLab)

Boris Sharkov (FAIR)

- a. new planned facilities & future possibilities at present facilities
- b. progress at facilities under construction
- c. management strategies for accelerator facilities

2. Accelerator Design & Technology

Stuart Henderson (ANL)

Paul Collier (CERN)

- a. codes and models
- b. radiation shielding and dosimetry and residual activation
- c. reliability analyses
- d. prototyping

3. Material Research with Accelerators

Victor Inozemtsev (IAEA)

James Stubbins (Univ. of Illinois)

- a. new structural materials for fission and fusion reactors
- b. effect of fast heavy ions on materials
- c. investigations of materials for microelectronics with fast particles
- d. structural and chemical analysis by low-energy nuclear methods at accelerators

4. Accelerators in Life Sciences

Stephane Lucas (UNamur)

Carol Johnstone (FNAL)

- a. hadron therapy
- b. radiobiology
- c. BNCT
- d. biology with synchrotron radiation

5. Accelerators for ADS

Sama Bilbao y Leon (VCU)

Maud Baylac (CNRS-LPSC)

- a. drivers of an experiment
- b. large-scale demonstrators
- c. industrial types and applications

6. High-Power Accelerators and High-Power Spallation Targets

Eric Pitcher (ESS)

John Galambos (ORNL)

- a. target design and engineering
- b. target windows and beam dumps
- c. neutron spallation sources

7. Accelerators for Monitoring the Environment

Aliz Simon (IAEA)

Dick Lanza (MIT)

- a. physical and chemical properties of the environment
- b. history & art
- c. safety
- d. security

8. Industrial Applications

Bob Hamm (R&M Tech. Enterprise)

Sotirios Charisapoulos (INP)

- a. electron irradiation
- b. X-ray conversion
- c. sterilization
- d. wear analysis

9. Nuclear Data

Arjan Plompen (EC – JRC)

Mark Chadwick (LANL)

- a. fission and fusion applications
- b. photonuclear cross sections
- c. nuclear models and applications
- d. simulating nuclear reactions for calculations

10. Accelerator production of radioisotopes

Lia Merminga (TRIUMF)

Dan Dale (ISU)

- a. medical applications
- b. geoscience applications

Topic Organizers are in red