Efficient Neutron Sources

Monday 2 September 2019 - Thursday 5 September 2019

Auditorium

Scientific Programme

Neutron Production

In this session the main focus will be placed on neutron production: spallation targets and fission reactors. We would like to initiate discussions on topics such as high power vs. compact sources and spallation vs. fission as primary neutron production channels. Contributions from Monte Carlo particle transport as well as design and engineering are welcome.

Moderators & Reflectors

The efficient design of neutron moderators and reflectors will be at the core of this session. Hydrogen and methane have, up to now, been the prominent choice for moderator materials. However new materials like mesitylene and others shall be discussed. Contributions from nuclear and material scientists, mechanical engineers and designers are welcome.

Neutron Guides

Neutron guides are the connecting part between moderators and instruments, and thus play an extremely important role in the design of efficient neutron sources. By using advanced neutron optic techniques, neutron beams can be tailored specifically to experimental needs. The simulation, design and commissioning of neutron guides, chopper systems and optics will be discussed in this session.

Instruments & Detectors

At high power neutron sources, efficient detector systems are vital to make use of the full neutron flux available. Therefore, different detector types and neutron detection techniques shall be discussed in this session.