

Experts Meeting on Fast Neutron Imaging



Sunday, 20 October 2019 - Wednesday, 23 October 2019

MLZ Garching

Scientific Program

Neutron sources for fast neutrons

- Nuclear reactors
- Accelerator based sources
- Laser driven sources
- Performance
- Characterization

Beam formation

- Beam geometry
- Collimators
- Beam scrapers
- Filters
- Moderators
- Beam dump

Neutron detection

- Converter reactions
- Scintillators
- Image detection systems (camera, flat panel, ...)
- Simulation of the detection process

Applications

- Cross-section data for fast neutrons
- Contrast mechanism
- Examples and results
- Quantification

Advanced approaches

- Partly moderated beams
- Data fusion with different energies of neutrons
- Single Event Mode Imaging
- Using the gamma component
- Monte-Carlo Simulation