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Neutrons for today and tomorrow –The HBS Project for compact accelerator based neutron sources

Monday 2 September 2019 14:00 (30 minutes)

Accelerator driven neutron sources with high brilliance neutron provision present an alternative to classical neutron sources of fission reactors and spallation sources to provide scientist with neutrons to probe structure and dynamics of matter.
The Jülich Centre for Neutron Science has started a project to develop, design and demonstrate compact accelerator driven high-brilliance neutron sources (HBS) as an efficient and cost effective alternative to current low- and medium-flux reactor and spallation sources. The HBS will consist of a high current proton accelerator, a compact neutron production and moderator unit and an optimized neutron transport system to provide thermal and cold neutrons with high brilliance. The project offers construction of a scalable neutron source ranging from university based neutron laboratory to full user facility with open access and service. Embedded within international collaboration with partners from Germany, Europe and Japan the Jülich HBS project will offer flexible solutions to the scientific.
We will describe the currents status of the project, the next steps, milestones and the vision for the future neutron landscape in Europe.

Poster back-up

Yes

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