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Simulation of Neutron Focusing Optics using the Simulation Package VITESS

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Though focusing neutrons is by far more difficult than focusing charged particles or photons, several optical devices for this purposes have been developed over the last decades: focusing guides and benders, lenses and prisms, focusing mirrors and mirror assemblies as well as hexapole magnets. Except for the latter ones, they can all be simulated using the neutron instrument simulation package VITESS. In this talk, we present the VITESS modules representing these devices and show how they are used. In most cases, examples of applications are also given.

Primary author: LIEUTENANT, Klaus (Forschungszentrum Jülich)

Co-authors: Dr MANOSHIN, Sergey; Dr NEKRASSOV, Daniil; ZSIGMOND, Geza (PSI - Paul Scherrer Institut); ZAKALEK, Paul (Jülich Centre for Neutron Science JCNS und Peter Grünberg Institut PGI JCNS-2, PGI-4: Streumethoden Forschungszentrum Jülich GmbH D-52425 Jülich, Germany)

Presenter: LIEUTENANT, Klaus (Forschungszentrum Jülich)