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## Neutron Instrumentation - Tools from Scientists for Scientists

*Thursday, December 10, 2020 9:00 AM (30 minutes)*

Neutron instruments are key to productive and successful experiments. Their continued development and the implementation of new ideas is the basis for enabling excellent science, increase performance of instruments or to open new fields. I will give a brief cross section of ongoing instrument developments in the Endurance program at the Institut Laue-Langevin (ILL).

In particular, recent and future advances in neutron backscattering will be highlighted. The BATS option on IN16B increases the dynamic range of the instrument by an order of magnitude and enabled the development of a new generation of high speed choppers. Currently, a 10m long neutron guide section with variable beam focusing is being implemented to enable an adaptive beam compression around the pulse chopper system.

The BATS project and several others are only possible thanks to the 'Verbundforschung' funding scheme of the German Ministry of Education and Research, which fosters strong collaboration between scientists at research centers and scientists at universities - a prerequisite for a sustainable balance between excellent instrumentation and an excellent user community.

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