

The Powersupply system of the Neutron Spin-Echo Spectrometer at the FRM-II

Wednesday, 29 November 2017 17:34 (6 minutes)

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A Neutron Spin-Echo Spectrometer (NSE) measures small velocity changes at a sample of the neutrons encoded by the neutrons spin clock while the neutron spin precesses in large magnetic fields following Bloch's equation. In order to reach this ambitious goal, a high precision of the magnetic field integral before and after the sample, which directly relates to the resolution of the instrument, is required.

As the power supply system operating various coils of the J-NSE in Garching had reached end of its life cycle and the manufacturer limited the support for the system FZJ decided to replace that system. Due to the demanded technical requirements (accuracy, stability and reliability) of the whole system in conjunction with limited space and budget a investigation for a new supplier was started. Neither the less the new systems connectivity should also fit into the Jülich-München standard to be implemented into the Tango / Nicos instrument software.

Within the talk we will explain procedures we developed to compare documented characteristics of the powersupplies with measurements made in our labs with respect of operating an neutron scattering instrument.

Formal Invitation Letter Required

No

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Session Classification: Nibbles - Poster, Sponsors DENIM Challenge

Track Classification: Instrument Electrical Systems