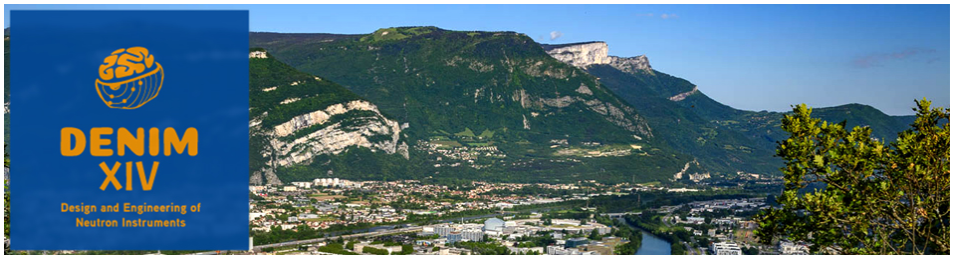

Contribution ID: **77** Type: **Presentation**

Controls and integration of Choppers at ESS

Tuesday, October 21, 2025 4:30 PM (15 minutes)

The proper control of neutron choppers is essential for improving the precision, reliability, and efficiency of experiments conducted at neutron research facilities. This presentation contains the various strategies explored at ess for controlling neutron choppers, including data standardization, hardware, and phase control. We will discuss differences in control systems for choppers at ess, such as the integration of data, automation, as well as the challenges faced in maintaining software version, hardware differences/obsolence and reducing system errors. How we aim to deliver better data quality in neutron experiments by optimizing the neutron chopper control. The presentation will also highlight future trends in chopper technology and control systems, including the potential role of artificial intelligence and machine learning for predictive control and system optimization.

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Session Classification: CHOPPERS