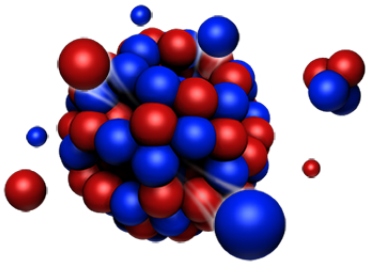

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ISIS UNIVERSAL CRYOSTAT CONTROLLER – PROJECT CONCEPT

Wednesday, 16 October 2019 13:00 (2 hours)

We provide an introduction to the 'ISIS Universal Cryostat Controller'(UCC) project.
The projects aim is to design a standard in-house controller with the ability to autonomously control various types of cryostat systems used at ISIS, including; Orange, Variox and Flow cryostats. Such a controller would provide a level of simplicity in the operation of our cryostat systems and reduce our reliance on third party control hardware and associated software.
We have drawn on the experience gained in the operation the ISIS Orange Cryostat Controller (OCC), together with user feedback, as a basis for this work. Automation and optimization of the helium flow, leading to efficient and economical helium management, for example, is addressed.
The expected development challenges that will be faced and the range opportunities this system will offer, is also discussed, as is timescales, customer requirements and the technology and techniques that are currently available to deliver a fully realized UCC.

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