

## Characterization of magnetic structures using (coherent) x-rays

*Sunday, 27 January 2019 14:30 (25 minutes)*

I will lead in by giving a brief overview over the Advanced Light Source and over techniques that may be of interest to the QIS and in particular the quantum materials community. I will then discuss two examples: Photoemission Electron Microscopy (PEEM), which was used to study the ground state and thermal dynamics of artificial spin ice systems and soft x-ray interferometry, which we used to determine material properties in a prototypical Young's double slit experiment. The systems are classical in nature but the discussed techniques could be of interest to this community as well. I will in particular concentrate on the opportunities provided by the high coherent x-ray flux provided by next generation, diffraction-limited storage rings. e.g., ALS-U.

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