

## Poster-2-10

**Investigation of putative multi-Q magnetic structure in CeAl<sub>2</sub>**

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Since the discovery of multi-Q skyrmion lattice state in MnSi [1], the exploration of magnetic multi-Q states has found renewed interest. The heavy fermion compound CeAl<sub>2</sub> orders in a complex antiferromagnetic ground state below 4K [2-6]. Since several years there is an ongoing debate about the correct magnetic structure. To date each experiment to attempt the question of the correct magnetic structure reported a different complex multi-Q incommensurate magnetic order, explained in terms of single- [5], double- [6] and triple-Q states [3]. We report our results from recent single crystal neutron diffraction to investigate the magnetic order. We will also show neutron spectroscopy data of the magnon dispersion arising from the underlying complex multi-Q structure.

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