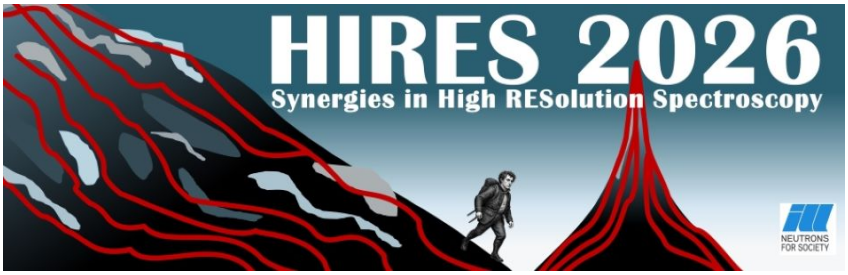

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Spinon continuum of a triangular lattice ising candidate

Rare-earth trihalides are attracting attention in the field of quantum matter for their potential to exhibit exotic ground states arising from interactions among magnetic moments, including competing interactions or geometrical frustration. While the late rare-earth halides adopt a honeycomb structure, the early rare-earth trihalides adopt a 3D UCl3-type structure, with ABAB stacked triangular lattices and a short cation distance along the [001] direction. We have investigated a cerium trihalide that behaves as a 1D Ising magnet with antiferromagnetic interactions along the chains. Neutron spectroscopy is a crucial tool for investigating magnetic excitations, and we investigate the spinon continuum of the 1D magnet.

Session

Magnetism

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