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【703】Frustration-induced diffuse magnetic scattering in metallic HoInCu4

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Materials with geometrical frustration are interesting study cases as they often exhibit unconventional phases of matter. While most research on frustrated materials have been performed on insulating spin systems, only little work has been done on metallic systems.

Here, I will present recent neutron scattering results of the frustrated metal HoInCu4, which features partial magnetic order where only half of the Holmium atoms exhibit long-range magnetic order, while the other half remain short-ranged. I will present diffuse magnetic scattering data as function of temperature, and discuss how they can be attributed to the magnetic nearest and next-nearest neighbor interactions.

Theoretical Work

Author: BORALEY, Xavier

Co-authors: Dr STOCKERT, Oliver (Max Plank Institute); Dr FJELLVAG, Oystein (Paul Scherrer Institut); SIBILLE, Romain (Laboratory for Neutron Scattering and Imaging, Paul Scherrer Institut, 5232 Villigen PSI, Switzerland.); Dr FRITSCH, Veronika (Augsburg University); MAZZONE, Daniel

Presenter: BORALEY, Xavier

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