



TRR 80 Sonderseminar

Am Mittwoch, den 25. Oktober um 16:00 Uhr

spricht

Dr. Peter Milde

TU Dresden

über das Thema

Scanning Force Microscopy Investigations of Skyrmions

In the past decade, a lot of interest was spurred by discoveries of vortex-like magnetic states, so-called skyrmions, in a variety of materials characterized by the anisotropic Dzyaloshinskii-Moriya (DM) interaction. Originally introduced in the context of pion fields, the expression skyrmion today is used in a more general sense as a term for a mathematical construct, that describes a topologically stabilized, particle-like object. The topological nature of the skyrmions gives rise to new and exciting physics, such as the so-called topological protection, i.e. an increased stability against the superparamagnetic effect, as well as the topological Hall-effect, or the Skyrmion Hall-effect. Real-space imaging of these objects, especially on single crystals, is readily achieved using magnetic force microscopy. We review our scanning force microscopy investigations of skyrmions in direction bulk-DMI single crystal materials, such as $\text{Fe}_x\text{Co}_{(1-x)}\text{Si}$ ($x = 0.5$), GaV_4S_8 and Cu_2OSeO_3 and report on recent findings.

Gäste sind herzlich willkommen.

Der Vortrag findet im Seminarraum S-242, Institut für Physik, Universität Augsburg statt.

Gastgeber: Dr. Stephan Krohns

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