PSI Condensed Matter Colloquium

Friday, May 24, 2019, 11:15 h, WHGA/001

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2D Magnetic Materials

The first 2D magnetic material in which ferromagnetism has been shown experimentally to persist down to individual monolayers has been reported less than two years ago. Since then a number of different experiments have been performed on atomically thin magnets of different types, and led to interesting observations (giant tunneling magneto resistance, gate-tuning of the magnetic state, strong exchange bias at van der Waals interfaces, etc.). In my talk I will give a short introduction to this rapidly evolving domain of research, and discuss results obtained in my group on atomically thin multilayers of materials such as Crl_3 , $CrCl_3$ (layered antiferromagnets) and $MnPS_3$ (antiferromagnetic within individual layers), as well as in thicker exfoliated layers of $Cr_{1/3}NbS_2$ (a metallic helical magnet with a pitch of 48 nm).



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