

2D magnets: from fundamental to spintronic devices

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The advent of graphene fifteen years ago kicked off an active research of other 2D materials and the list of interesting 2D materials, nonmagnetic or magnetic, metals, semiconductors or insulators, increased considerably during the recent years. The focus of my talk is on 2D magnets. I will review their physical properties (influence of proximity effects and electric fields, spin-orbit effects, chiral interactions, multiferroic properties) and present their potential for applications in spintronics (provided that their ordering temperature can be enhanced).