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## Crafting magnetic skyrmions at room temperature : size, stability and dynamics in multilayers

*mercredi 17 mars 2021 15:30 (20 minutes)*

Magnetic skyrmions are nanoscale non-collinear configurations of the magnetic order, featuring specific topological properties. This talk will present how the proper balance of several magnetic interactions allows for their stabilization up to room temperature. One key ingredient is the presence of a Dzyaloshinskii-Moriya antisymmetric exchange interaction, which will be discussed from an experimental point of view. Further, different experiments will be presented, which show how the nucleation, displacement and detection of magnetic skyrmions can be associated in nanostructured electronic devices. Magnetic skyrmions are promising for high-density, low consumption large-scale electronic applications as well as for new computation architectures, and are thus at the basis of many proposals for novel functionalities in computing electronics, which will be briefly outlined.

### Language

English

### Field

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