W2S Seminar
(Webinar series on Spintronics)

Magnetic Materials and Topology

93rd W2S webinar

Speaker:

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Date and time:
09.06.2022 at
8.00 pm IST
i.e. 4.30 pm CET

Abstract

Topology, a mathematical concept, recently became a hot and truly transdisciplinary topic in condensed matter physics, solid state chemistry and materials science. All 200 000 inorganic materials were recently classified into trivial and topological materials, such as topological insulators, Dirac, Weyl and nodal-line semimetals, and topological. Beyond the single particle picture, we have identified first antiferromagnetic topological materials. Experimentally, we have realized ferromagnetic materials, examples are Co2MnGa and Co3Sn2S2. Surprisingly all crossings in the band structure of ferromagnets are Weyl nodes or nodal lines. Mn3Sn and YbMnBi2 are examples of non collinear antiferromagnetic Weyl semimetals, which show giant values for the anomalous Hall and Nernst effect. Our goal is to identify new quantum-materials for highly efficient spintronics, quantum computing and energy conversion.

To attend the lecture please visit: **Passcode: 360605** Zoom link: https://us06web.zoom.us/j/83538561932?pwd=ZG5yaTcyV2VvZWxTNGR1QnJDRWhqUT09

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