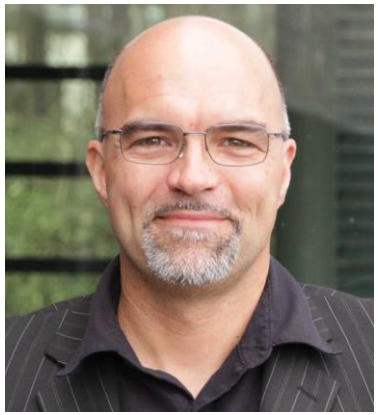
W2S Seminar
(Webinar series on Spintronics)



Exploring magnetic reversal behavior and domain structure in perpendicular anisotropy layered synthetic antiferromagnets

96th W2S webinar

Speaker: Prof. Olav Hellwig
Chemnitz University of Technology and
Helmholtz-Zentrum Dresden Rossendorf

Date and time:
07.07.2022 at
8.00 pm IST
i.e. 4.30 pm CET

Abstract

While the magnetic field reversal and domain structure in intrinsic systems, where the antiferromagnetic (AF) order originates from the crystal structure, are difficult to probe, the situation is more favorable in synthetic antiferromagnets (AFMs). These application-friendly systems have much lower AF-exchange that can be easily tuned via the individual layer thicknesses of the system. In our studies we use multilayered perpendicular magnetic anisotropy systems with the AF-exchange strength tuned to be comparable to other magnetic energy terms, such as the anisotropy or demagnetization energy. This creates novel competitive magnetic energy landscapes, which are not accessible via intrinsic AFMs, where the AF-exchange fully dominates. We will highlight potential opportunities in these systems for creating and controlling magnetic textures, which can be integrated into more complex 3D magnetic domain structures in order to define custom designed stray field, magnonic or magetoresistence landscapes.

To attend the lecture please visit: **Passcode: 266450** Zoom link:
https://us06web.zoom.us/j/87166010320?pwd=WTk0NGNONk5tZnRZcFM0REhJYVFhQT09

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