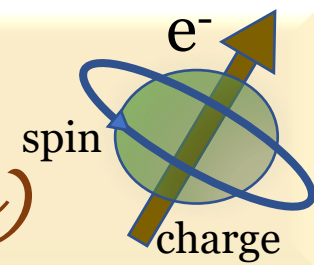




W2S Seminar

(Webinar series on Spintronics)



Building a Platform for Antiferromagnetic Skyrmionics



Speaker:

Dr. Hariom Jani

National University of Singapore,
Singapore

Date and time:

03-03-2022

at

08.00 pm IST

3.30 pm CET

Abstract

Topological magnetic textures could emerge as information bits in next-generation computing. Although such textures are abundantly observed in ferromagnets, their antiferromagnetic (AFM) counterparts are expected to be even more relevant for applications, as they promise ultra-fast, deflection-free dynamics whilst being robust against stray fields. However, such textures have remained elusive due to the magnetic compensation, making it difficult to control AFM textures. In my talk I will outline a general field-free approach that we exploited to reversibly create a zoo of topological AFM textures at room temperature, in the earth-abundant iron-oxide (main component of rust). Presence of widely tuneable magnetic interactions in this system promises unprecedented control over texture dimensions and orientation. Finally, I will present the outlook for AFM skyrmionics discussing electrical pathways to control the topological family.

To attend the lecture please visit: **Passcode: 885312** Zoom link:
<https://us06web.zoom.us/j/89503932294?pwd=QIRNZTBKdzNDbktQUQJMUjVIMmJrUT09>

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