# W2S Seminar
## (Webinar series on Spintronics)

## Ferrimagnetic insulators: from spin-orbit torque to chiral interaction


Speaker:

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**Date and time:**
**17.03.2021 at**
**8.00 pm IST**
**i.e. 3.30 pm CET**


### Abstract

Ferrimagnetic insulators (FMIs), such as yttrium iron garnet, have ultralow damping and are free of electronic Joule heating, promising an ultralow-power information channel for future spintronic circuits. However, the memory applications based on magnetic insulators have been halted for decades since the hot pursuit of magnetic bubble memory in the last seventies due to two major drawbacks: magnetic field control and large bubble size. In this talk, I will discuss current-induced spin-orbit torque (SOT)-driven magnetization switching in FMIs with a large thickness and across compensation temperature. Then, I will present our evidence of chiral interaction and topological Hall effect in FMI-based heterostructures. Efficient SOT manipulation and chiral spin textures in heavy metal/FMI bilayers provide a valuable platform for exploring magnetic insulator-based memory devices.


To attend the lecture please visit: **Passcode: 360030** Zoom link:
https://us06web.zoom.us/j/86483696772?pwd=T20vRkx6MmNyanMxZkpOb2x5cWZhZz09


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