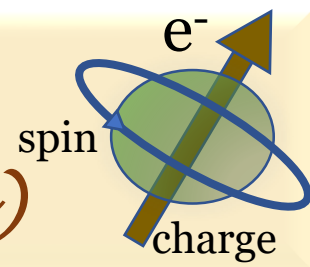




W2S Seminar

(Webinar series on Spintronics)



Enhancing Spin-Orbit Torque Efficiency via Orbital Currents

Speaker:

Prof. Chi-Feng Pai

National Taiwan University, Taiwan

Date and time:

24.02.2022 at

8.00 pm IST

i.e. 3.30 pm CET

Abstract

Current-induced spin-orbit torque (SOT) is regarded as a promising mechanism for driving magnetic memories. In principle, to achieve high SOT efficiency in magnetic heterostructures, materials systems with strong spin-orbit coupling (SOC)-induced spin Hall effect (SHE) or spin Rashba-Edelstein effect (SREE) are employed, from which pure spin currents can be generated to produce spin-transfer torques. Very recently, several SOC-free mechanisms, such as the orbital angular momentum (OAM)-induced orbital Hall effect (OHE) and orbital Rashba-Edelstein effect (OREE), are proposed to produce sizable orbital currents and SOTs. In this talk, I will present some of our recent results on enhancing the overall SOT efficiency by employing both the SHE and the OHE of the materials systems.

To attend the lecture please visit: **Passcode: 110989** Zoom link:
<https://us06web.zoom.us/j/81473923850?pwd=dUpLQ2xLVzdRUHJNUDIwUzZnSytjdz09>

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