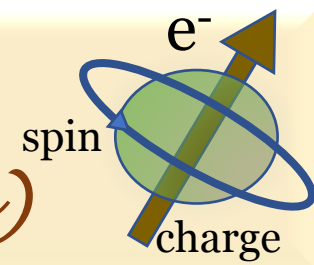




W2S Seminar

(Webinar series on Spintronics)



Spin-Orbit Effects in Spintronics

Speaker:
Prof. Anjan Barman
Department of Condensed Matter Physics and
Material Sciences
S. N. Bose National Centre for Basic Sciences

Date and time:
11.06.2020 at 11am

Via
Google meet

Abstract

Ferromagnetic/nonmagnetic (FM/NM) heterostructures show a range of quantum properties controlled by the spin-orbit interaction at the interface, and they have huge potential applications in new generation spintronics. Here, I present the investigation of time- and wave-vector-resolved ultrafast spin dynamics and spin waves in FM/NM heterostructures induced by optical, thermal and spin-orbit-torque excitation using time-resolved magneto-optical Kerr microscope and Brillouin light scattering spectroscopy. I shall discuss a range of phenomena, including ultrafast demagnetization, magnetization precession, damping and spin-wave dispersion to probe spin scattering processes, spin Hall effect, spin pumping, interfacial Dzyaloshinskii-Moriya interaction, voltage controlled magnetic anisotropy and magnon straintronics in a range of heavy metals and graphene interfaced with ferromagnetic thin films.

If interested to attend then please visit <https://www.niser.ac.in/w2s-seminar/index.php>