

Internal Webinar

Magneto-transport, Magneto-optical and FMR studies of Topological Insulator / Magnetic Material Thin Films and Devices Subhadip Manna

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High-quality TI thin films were grown using Pulsed Laser Deposition (PLD) and conducted light polarisation-dependent photocurrent measurements, investigating phenomena such as the circular photo galvanic effect (CPGE), circular photon drag effect (CPDE). Our work has demonstrated the importance of CPGE and CPDE in distinguishing between topological and trivial phases, supported by magneto-transport measurements. Additionally, we have studied photothermal transport under rotating magnetic fields, observing magnetic field-dependent photothermal voltage anisotropic and confirming the contribution of nontrivial bulk bands' Berry curvature and the photo-Nernst effect.

Later I will talk about low-temperature ferromagnetic resonance (FMR) measurements on TI/FM bilayers, exploring phenomena such as spin-orbit torque (SOT), spin to charge conversion efficiency, and the inverse Edelstein effect.

Tuesday, Jun 17th 2025 11:30 Hrs

