IIT KANPUR

PHYSICS COLLOQUIUM

LIGHT-MATTER INTERACTION IN BROADBAND METAMATERIALS WITH DIPOLE EMITTERS

SPEAKER

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ABSTRACT

Metamaterials with sub-wavelength featured metal and dielectric structures can be designed for specific applications. They offer opportunity to study rich physics as well. Metamaterials with dipole emitters are a good platform to study light-matter interaction in different coupling regimes. While weak and strong coupling regimes are well studied, ultrastrong and deep strong coupling regimes are of current interest. In this talk, I will present our work on broadband plasmonic structures to cover their properties, applications including single molecule sensing, and plasmon-exciton interactions.

All are cordially invited

FB 382 (Amal Kumar Raychaudhuri Seminar Room)

Friday, October 10, 2025 at 5:15 PM (Refreshments at 05:00 pm)