Tata Institute of Fundamental Research
Survey No. 36/P, Gopanpally Village, Serilingampally, Ranga Reddy Dist., Hyderabad - 500107

Colloquium

Mesoscopic optics of light transport through nanostructured media

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Light generation and propagation in nanostructured media is a topic of significant implications. When the structure is periodic, or disordered over a periodic template, the transport obeys mesoscopic physics of electrons in conductors. Essentially, the transport is strongly modified by the self-interference of multiply scattered waves, which realizes exotic effects such as Anderson localization. In this talk, I shall first describe the general relevance of mesoscopic optics in a modern context. Thereafter, I shall summarise our work on non-Gaussian statistics in diffusive gain media, Anderson localization in one-dimensional amplifying and hybrid-plasmonic media, and two-dimensional dielectric media.

Tuesday, Apr 2nd 2019

4:00 PM (Tea/Coffee at 3:30 PM)

Auditorium, TIFR-H