

# COLLOQUIUM

## “Optical resonators: From lasers to quantum electrodynamics”

**Abstract:** Optical resonators, storage units for light, are perhaps the most ubiquitous elements in modern photonic studies. Most studied for their utility in lasers, they are now considered a fundamental building block in higher-level photonic devices. In this talk, I shall cover the basics of resonators as required in lasers, and then discuss the realization of microresonators, which have enabled fundamental quantum electrodynamic studies in the lab.

By

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Dr Sushil Mujumdar carried out his doctoral studies in the Raman Research Institute, Bangalore, where he specialised in mirrorless lasers realized from structural randomness. Subsequently, he worked on the propagation of few-cycle pulses in complex media in the University of Alberta, Canada, and then in near-field studies of ultrahigh-quality optical resonators in ETH, Zurich. Currently, he is the Principal Investigator in the Nano-optics and Mesoscopic Optics Laboratory in the Tata Institute of Fundamental Research, Mumbai, which specialises in studies of mesoscopic phenomena in nano-structured optical materials

**Day & Date :** Tuesday, March 11, 2014  
**Time :** 15:45 hrs  
**Venue :** Seminar Room, PF-AG-14, Prefabs, Near Annabhau Sathe Bhavan, University of Mumbai, Vidyanagari, Kalina Campus, Mumbai - 400 098.

*All are Welcome*