



Physical Research Laboratory, Ahmedabad

Colloquium 17-19

- Speaker:** Dr. Urbasi Sinha
Associate Professor II, Raman Research Institute (RRI), Bangalore
- Title:** “Fascinating world of photons, superposition and entanglement”
- Time:** Wednesday, 30 August 2017, 16.00 hrs.
- Venue:** K. R. Ramanathan Auditorium, PRL

Abstract

Quantum mechanics is a cornerstone of modern physics. Just as the 19th century was called the Machine Age and the 20th century the Information Age, the 21st century promises to go down in history as the Quantum Age. In this talk, key properties of quantum systems called Quantum Superposition & Quantum Entanglement and the world of single & entangled photons will be discussed. Also, in this colloquium the ongoing work towards quantum technology in Quantum Information and Computing lab at the Raman Research Institute, Bengaluru will be discussed.

The Speaker

Dr. Urbasi Sinha is an Associate Professor II at the Light and Matter Physics group, Raman Research Institute (RRI), Bengaluru since January 2015. She is an affiliate faculty member at the Institute for Quantum Computing (IQC), Waterloo, Canada, the Centre for Quantum Information and Quantum Computing (CQIQC), University of Toronto and holds an adjunct faculty position at Harish Chandra Research Institute (HRI), Allahabad, India. Dr. Sinha completed her BSc (Physics honours) from Jadavpur University, Kolkata (2000). She then completed her B. A., M. A. in part-III Natural Science Tripos from the University of Cambridge, UK in 2002. She was awarded the prestigious Nehru Chevening full scholarship by the Cambridge Commonwealth Trust for pursuing her Tripos and was the only Physics recipient of the award that year (2000). She pursued her PhD in Physics and Materials Science from the University of Cambridge during 2002-2006. She was awarded the prestigious Gates Cambridge scholarship to pursue her PhD. After completing her PhD, Dr. Sinha got one year post-doctoral fellowship (2006-2007) at the Cavendish Laboratories, Cambridge. She then went on to a post-doctoral position at the IQC, Canada from 2007-2012. At IQC, Dr. Sinha has made very important contributions to the field of Quantum Information Processing using quantum optics tools. She then returned to India and joined RRI, where she set up the Quantum Information and Computing lab. This is a leading lab in India with concerted and varied efforts in both quantum computing as well as quantum communication based goals. She has been awarded a research grant by the John Templeton Foundation, USA in 2015. She has also been awarded the prestigious Homi Bhabha Fellowship in 2017.

Tea at 15:30 hrs.

ALL ARE WELCOME

