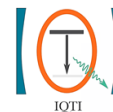




QuanTalks

IISc Quantum Technologies Initiative (IQTI) Seminar Series



Title: Experiments of quantum with entangled photons

Speaker: Prof. Mandip Singh,

Associate Professor of Physics, IISER Mohali.

Email: mandip@iisermohali.ac.in

Abstract: Quantum entanglement is one of the foundational concepts of quantum physics. Quantum entanglement was elaborated by Einstein Podolsky and Rosen, in their EPR argument, to show the main inconsistency of quantum mechanics with the principle of reality and locality. Progress of quantum measurement technology has made it possible to perform precise experiments at the level of single photons. In the past three decades, many interesting experiments have been performed from the perspective of the foundations of quantum mechanics. Applications of quantum entanglement such as quantum teleportation and quantum cryptography are realised over a distance of hundreds of kilo-meters in free space as well as in optical communication networks. In this talk, I will present experiments of foundational significance performed in my lab. In addition, I will also highlight experiments on quantum imaging.

About the Speaker:

Mandip Singh completed his doctoral training in 2008 from the Swinburne University of Technology, Melbourne, Australia. For his postdoctoral research, he joined Prof. Anton Zeilinger's group at the Institute of Quantum Optics and Quantum Information (IQOQI), University of Vienna, Austria. In 2012, he joined IISER Mohali, where his research focuses on the foundations of quantum mechanics, quantum entanglement, nonlocality, quantum information processing with photons, and BEC experiments. He leads the Quantum imaging and quantum information processing with photons project awarded under the nation's Quantum Enabled Science and Technology (QuEST) mission.



Date & Time
Wednesday,
9th March 2022,
6:00 PM IST

Meeting Link
[Click here to join the Webinar](#)