



INSTITUTE FOR THEORETICAL ATOMIC, MOLECULAR AND OPTICAL PHYSICS
at the Harvard-Smithsonian Center for Astrophysics and Harvard Physics Department, Cambridge MA USA

HARVARD Quantum Optics Center

Joint Quantum Sciences Seminar

Wednesday | Dec. 5 | 4:00 pm
Jefferson 250

Gerhard Rempe

Professor, Max Planck Institute for Quantum Optics

"Quantum Networks"

A grand challenge of quantum information science is the realization of a quantum-coherent network for quantum communication and quantum simulation. The talk will review recent experiments in which quantum state transfer, remote entanglement and teleportation between distant quantum memories has been achieved. Our approach to quantum networking is efficient and scalable, allows for arbitrary topologies and features controlled connectivity as well as infinite-range interactions.

**Student Presentation by David Patterson,
Post-Doc, Doyle Lab**

**"Buffer Gas Cooling of Large Molecules: Trace Gas Analysis and
Chiral Discrimination"**

Student Presentation will begin promptly at 4:00 PM
Refreshments will be served at 4:10 PM
Guest Presentation will begin promptly at 4:30 PM