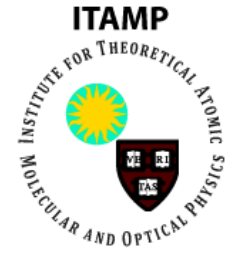




HARVARD Quantum Optics Center



Joint Quantum Sciences Seminar

**Wednesday | April 23 | 4:00 pm |
Jefferson 250**

Igor Lesanovsky
University of Nottingham

"Out-of-Equilibrium Dynamics of Strongly Interacting Rydberg Gases in a Dissipative Environment"

The most recent generation of cold atom experiments uses atoms in Rydberg states to explore many-body phenomena. In this talk, I will focus on the non-equilibrium dynamics of such systems where non-trivial behavior is generated by the competition between coherent laser excitation, dissipation and the strong interaction between Rydberg atoms. I will discuss the relaxation of Rydberg lattice gases, showing this it is hierarchical and strongly correlated. This establishes a connection to kinetically constrained systems that are used in soft condensed matter physics as models for the description of glassy phenomena.

**Student Presentation by Michael Moebius,
Mazur Group**

**"Integrated Photonics as an Efficient Source of
3-Photon Entangled States"**

**Student Presentation will begin at 4:00 PM
Refreshments will be served from 4:10-4:30 PM
Guest Presentation will begin at 4:30 PM**