

SPECIAL PIZZA AMO PHYSICS SEMINAR

“Electromagnetically Induced Transparency and Nonlinear Optical Effects in Mechanical Effects of Light ”

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ABSTRACT

We consider the dynamical behavior of a nano mechanical mirror in a high quality cavity under the action of a coupling laser and a probe laser. We demonstrate the existence of the analog of EIT in the output field at the probe frequency. Remarkably the opto mechanical system shares all the features of the atomic Lambda systems. We further study the spontaneous generation of Stokes and anti Stokes fields and quantum correlations between such fields.

Thursday, January 28, 2010

12:30 p.m., MIST M102

**Texas A&M University
Institute for Quantum Science & Engineering**

(PIZZA, salad, soda to be served at 12:00 noon)