

WEEKLY CALENDAR

November 1, 2010

Departmental Colloquium

3:40 PM, November 4, 2010
109 Nicholson Hall

"Quantum Control of Cold Boson Systems Using Nonlinear Dynamics"

Linda E. Reichl
University of Texas - Austin

Host: Jonathan Dowling

• *Refreshments served at 3:15 PM in 232 (Library) Nicholson Hall* •

Laser radiation, interacting with an ultra-cold boson system, can create chaos and nonlinear dynamical structures in the underlying classical phase space of the system. These light induced classical dynamical structures determine the phase space structure of the Floquet eigenstates that govern the dynamics of the entangled quantum system. Transitions between these light-induced Floquet states can be controlled by applying carefully chosen radiation pulses using a STIRAP-like process. Floquet analysis allows one to transition through a sequence of light-induced avoided crossings to achieve maximum control of transitions in the boson system and can be used, for example, to achieve coherent acceleration of the boson system.

Saturday Science at LSU

October 30, 2010

10:00 A.M.

130 Nicholson Hall, LSU

James Cowan, Center for Energy Studies

**"The Mississippi River coastal ecosystem: effects on fish and fisheries
(Is the Sportsman's Paradise Lost?)"**

PUBLICATIONS:

1. "Nuclear Medicine: Principles and Radiopharmaceuticals – A web-based educational module for radiology residents", **K.L. Matthews II** and L.S. Bujenovic, Radiological Society of North America and the American Associate of Physicists in Medicine. <http://physics.rsna.org>.