



PHYSICS & ASTRONOMY WEEKLY CALENDAR

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Louisiana State University
Baton Rouge, Louisiana 70803-4001

October 1, 2007

Departmental Colloquium

"Interference between Independent Photons and Quantum Entanglement in Atomic Systems"
3:40 PM - Thursday, October 4, 2007
109 Nicholson Hall

Girish Agarwal
Oklahoma State University

Host – Jonathan Dowling
• Refreshments served at 3:15 PM in 229 Nicholson Hall •

It is well known that the radiation emitted by independent incoherently excited atomic systems leads to no interference as is expected from the famous statement of Dirac that each photon interferes with itself. We discuss new theoretical ideas and the experiments which detect interferences between independent photons. Such interferences turn out to have strict quantum character. We further demonstrate possible uses of such interferences in quantum information science with neutral atoms and trapped ions and in communication between remote qubits. The ideas on interference are applicable to other systems of single particles.

Welcome To:

Vincent Vaughn, a Research Specialist in the Machine Shop, Room B-56 Coates, 8-2930.

Congratulation To:

Dr. Luis Lehner who has been appointed to the selection committee of the Nicholas Metropolis prize of the American Physical Society. The prize is awarded every year for the best dissertation in computational physics. Lehner was the first recipient of the prize in 1999.

Travel Announcement:

Attention International Travelers

The Bank of America places certain limits to prevent fraud on the corporate travel card, especially for international travel. These limits are intended to protect the cardholders, as well as, the State of Louisiana. International transactions are infrequent and may be blocked as potentially fraudulent activity. In order to make sure corporate travel cards are not blocked while on international travel, travelers are encouraged to contact Bank of America Fraud Security directly at 877-451-4602 to inform them of the travel dates before departure.

