

PHYSICS & ASTRONOMY WEEKLY CALENDAR

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WEEKLY CALENDAR

September 15, 2008

Department Colloquium

"A Scenario for spintronics: From spin scattering to a circuit"

3:40 PM, September 18, 2008 109 Nicholson Hall

Lu J. Sham University of California-San Diego Host: Jonathan Dowling

• Refreshments served at 3:15 PM in 201 Nicholson Hall •

Electron spin has been promised to be the key to the electronics of tomorrow as quantum computer being the key to the indefinite future. Here is a scheme of how quantum scattering of spins can generate digitized classical information in a semiconductor system, how the information can be preserved (the so-called non-volatile memory) and processed in logic gates in an integrated system. The circuit would enable information cascading without power amplification. An inexpert assessment of this theoretical spintronics with CMOS will be given to provoke discussion.

Welcome To:

Debbie Norman, a Coordinator with Dr. Juana Moreno. She is located in Room 285B, 578-1218.

Dr. Cesar Costa, a Postdoctoral Researcher with Dr. Gabriele González. He is located in Room 266, 578-8190.

Dr. Petr Anisimov, a Postdoctoral Researcher with Professor Jonathan Dowling. He is located in Room 425A, Extension 4-2159.