WEEKLY CALENDAR
September 9 - 13, 2013

DEPARTMENTAL COLLOQUIUM

"Measurements of the Highest Energy Cosmic Rays from the Pierre Auger Observatory"

3:30 PM September 12, 2013
109 Nicholson Hall

James Matthews
LSU – Department of Physics & Astronomy and
Co-Spokesperson, Pierre Auger Observatory

Host: Juhan Frank

• Refreshments served at 3:10 PM in 232 (Library) Nicholson Hall •

The Pierre Auger Observatory in western Argentina is the largest cosmic-ray observatory ever constructed. It was built by an international collaboration of scientists to study the highest energy cosmic rays. These are subatomic particles with energies up to and above $10^{20}$ eV -- far beyond what will ever be available from accelerators on earth. They are messengers from the most extreme neighborhoods in the universe. As Auger approaches ten years of successful data-taking, I will review what we have learned about ultra-high energy cosmic rays: the types of particles they are, their acceleration mechanisms and locations, and where we aim to go from this point onward..

PUBLICATIONS:


3. “Spherically symmetric gravity coupled to a scalar field with a local Hamiltonian: the complete initial-boundary value problem using metric variables”, Rol-dolfo Gambini and Jorge Pullin, Class. Quantum Grav. 30 (2013) 025012 (7 pp).