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Baton Rouge, Louisiana 70803-4001

WEEKLY CALENDAR

September 6, 2010

Departmental Colloquium

3:40 PM, September 9, 2010
109 Nicholson Hall

"Extending the Range of Gravitational-wave Astronomy"

Joshua Smith
California State University - Fullerton

Host: Gabriela Gonzalez

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

Gravitational waves present a new and fundamentally different spectrum in which to observe the universe. The Laser Interferometer Gravitational-wave Observatory (LIGO) project and its international partners seek to directly observe gravitational waves of astronomic origin. The LIGO detectors are nearing completion of their sixth science run and the construction of Advanced LIGO has begun. I will present the status of the search for gravitational waves and describe the future arc of the field from the current and Advanced detectors and the first detections, to third-generation detectors and deeper gravitational-wave astronomy. I will close with an overview of all-reflective interferometric techniques, based on diffraction gratings and waveguides, which could extend the reach of future detectors.

ANNOUNCEMENT:

The University will be closed on Monday, September 6, 2010 due to the Labor Day holiday. Classes resume on Tuesday, September 7, 2010 at 7:30 am.

PUBLICATIONS:

1. "Structure and physical properties of the noncentrosymmetric superconductor Mo₃Al₂C", **A. B. Karki, Y. M. Xiong, I. Vekhter, D. Browne, P. W. Adams, and D. P. Young**, K. R. Thomas, Julia Y. Chan, H. Kim and R. Prozorov, Phys. Rev. B 82, 064512 (2010).
2. "Dual Jets from Binary Black Holes", **Carlos Palenzuela**, Luis Lehner, Steven L. Liebling, Science, Vol 329, 20 August 2010.