



PHYSICS & ASTRONOMY WEEKLY CALENDAR

TEL: 225-578-2261
FAX: 225-578-5855
<http://www.phys.lsu.edu>

202 NICHOLSON HALL
Louisiana State University
Baton Rouge, Louisiana 70803-4001

WEEKLY CALENDAR

December 10, 2007

Material Science and Engineering

"TBA"

3:40 PM - Wednesday, December 12, 2007
109 Nicholson Hall

Peter Abbomonte

University of Illinois - Urbana-Champaign
Host - David Ederer - CAMD

Subatomic Physics Seminar

Lifetimes of States in ^{19}Ne Above the $^{15}\text{O}+\alpha$ Threshold

Monday, December 10

2:30pm in Room 435 Nicholson Hall

Mythili Subramanian
University of British Columbia and TRIUMF
Host: Jeffrey Blackmon

The $^{15}\text{O}(a,g)^{19}\text{Ne}$ reaction plays a role in the ignition of Type I x-ray bursts on accreting neutron stars. The lifetimes of states in ^{19}Ne above the $^{15}\text{O}+a$ threshold of 3.53 MeV are important inputs to calculations of the astrophysical reaction rate. These levels in ^{19}Ne were populated in the $^3\text{He}(^{20}\text{Ne},a)^{19}\text{Ne}$ reaction at a ^{20}Ne beam energy of 34 MeV. The lifetimes of six states above the threshold were measured with the Doppler Shift Attenuation Method (DSAM). The measurement, methods of analysis and implications of the results will be discussed.

Publications:

"Quantum Critical Scaling in Graphene", Daniel E. Sheehy and Joerg Schmalian, Phys. Rev. Lett. 99, 226803 (2007).