

LSU

Department of Physics & Astronomy

Weekly Calendar & News

February 12-16, 2018

Departmental Colloquium

Nuclear Astrophysics in the New Era of Multi-messenger Astronomy

Jorge Piekarewicz

Florida State University

Host: Jeff Blackmon 3:30 PM Thursday, February15 at 119 Nicholson Hall • Refreshments served at 3:10 PM in 232 (Library) Nicholson Hall

One of the overarching questions animating nuclear physics today is "How does subatomic matter organize itself". Neutron stars are cosmic laboratories uniquely poised to answer this fundamental question. The historical first detection of a binary neutron star merger by the LIGO-Virgo collaboration is providing fundamental new insights into the astrophysical site for the r-process and on the nature of neutron-rich matter. In turn, the study of exotic atomic nuclei at the Facility for Rare Isotope Beams (FRIB) will elucidate the underlying dynamics of the r-process and the composition of the neutron-star crust. In this presentation I will discuss how this synergy — in combination with nuclear physics insights, modern theoretical approaches, and powerful statistical ideas — can pave the way to understanding these fascinating objects.

LSU Physics & Astronomy in the News

- Glover Memorial Lecture Talks Einstein, Waves, Physics (The Dickinsonian)
- 10 top science minds tell what strange new body part they'd like to have (NBC News)
- Review: Ripples in Spacetime (The Space Review)

Events

- LSU celebrates NanoDays: the biggest event for the tiniest of science (Flyer is attached)
 - o **When:** Saturday, February 24, 2018 2:00 PM 6:00 PM
 - Where: Highland Road Park Observatory

Announcements

Students Mardi Gras Holiday

begins on Monday Feb. 12 at 7:30 a.m. Classes resume on Wednesday, Feb. 14 at 12:30 p.m. Campus closed on Tuesday, Feb.13





The observatory will have this month's solar viewing session from 2:00-3:30 p.m. through HRPO's Coronado Solar Max II.

Lunar viewing will take place from 3:14-4:45 p.m. showing a magnified daytime waxing crescent moon, and Venus will be viewed from 5-6 p.m.



Small Science Wields BIG IDEAS NanoDays 2018

Join LSU for the 9th annual NanoDays at the Highland Road Park Observatory on Saturday, February 24, from 2-6 p.m. The free family-friendly event is open to the public and will feature several hands-on activities for guests of all ages:

- · Learn first-hand how a Scanning Probe Microscope explores the nanoworld
- · See how nanomaterials are used to make stain-free clothes
- · Play with liquid crystals and magnets
- Make an Oobleck, a liquid with both liquid and solid properties

At 6:15 p.m., get inside the mind of physicist David Young, a professor in the LSU Department of Physics & Astronomy, who will present

"Alternative Energy! Using nanotechnology to improve the performance of thermoelectric materials."

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