

Weekly Calendar & News

November 13-18, 2017

Departmental Colloquium

Short Period Binary White Dwarfs:
Gravitational Waves, Merger Rates, and Likely Outcomes

Mukremin Kilic

University of Oklahoma

Host: Geoff Clayton
3:30 PM Thursday, November 16, 2017
109 Nicholson Hall

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

The identity of Type Ia Supernovae (SNe) Progenitors is one of the key open questions in astrophysics. Mergers of binary white dwarf stars are one of the proposed channels of the formation of SNe Ia. We have performed a targeted survey to find merging white dwarf systems, and we have increased the number of known merger systems by a factor of seven. Our sample includes systems with orbital periods as short as 12 minutes, and gravitational wave sources in the mHz frequency range. I will discuss the characteristics of this sample, their merger rate, and likely outcomes from these mergers.

Events

- **[Saturday Science @ LSU](#), November 18th, 10-11 AM:** “Hunting microbes upon the coastal sea”
By [Cameron Thrash](#), from Biological Sciences, LSU Located at 130 Nicholson Hall in LSU Campus.
- **[Science Saturdays at LIGO Livingston](#):** Engineer It! On November 18, 1 - 5 PM. Visitors are welcome to drop in and experience the LIGO Science Education Center's. The event is FREE. Tours are typically given every 30 minutes. Each Science Saturday focuses on a specific science topic and activities in the lobby focus on that topic. Located at 19100 LIGO Lane. Livingston, LA 70754
- **[LaCNS Seminar](#):** (See details below)



Monday, November 13
3:00 PM
1008B Digital Media Center
Louisiana State University

**Model Hamiltonians for Characterizing
Excess Electrons Interacting with
Fullerenes and Polyaromatic
Hydrocarbons**

It is well known that certain metals and graphene support Rydberg-type series of excess electron states, where the binding of the electron is due to the interaction with its image potential. Sufficiently, polarizable molecules and clusters possess very-extended non-valence anion states that can be viewed as finite system analogs to image potential states. In this talk, I discuss the development of one electron Hamiltonians for describing these excess electron species. These are generated by coupling the excess electron to a many-body polarizable force field.

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Guest Speaker
**Dr. Kenneth
Jordan**

Richard King Mellon
Professor and
Distinguished
Professor of
Computational
Chemistry

University of
Pittsburgh

Free and open to the public



www.lsu.edu/physics/lacns

