LSU College of Science

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Department of Physics & Astronomy

Weekly Calendar & News

October 9-14, 2017

Departmental Colloquium

Unveiling the Properties of Condensed Matter with Neutrons

Qiang Zhang

LSU Physics Department

Host: Rongying Jin

3:30 PM Thursday, October 12
109 Nicholson Hall

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

In the atoms family, neutrons are boring individuals neither positive (protons) nor negative (electrons). However, when a neutron beam interacts with matter, important information at the atomic scale can be obtained, including atomic and magnetic arrangement and their dynamic behavior. Such information is essential for understanding materials physics and chemistry. In this talk, I will present two examples by employing different neutron techniques. One is the determination of magnetic structure in the novel topological semimetal $Sr_{1-y}Mn_{1-z}Sb_2$, providing direct evidence for time-reversal symmetry breaking. The other is to unveil the magnetic correlation, lattice and spin dynamics in $Sr_3Ru_2O_7$ upon the partial replacement of Ru by Mn, elucidating the complex coupling between spin, charge and lattice.

LSU Physics & Astronomy in the News

- The Pursit - LSU College of Science Blog: When Gravitational Waves Crash Your Birthday Party... and Win a Nobel Prize
- The Daily Reveille: LSU adjunct professor wins part of 2017 Nobel Prize in Physics
- Gabriela González talks at WBUR 90.9: Nobel Prize In Physics Awarded To LIGO Scientists For Discovery Of Gravitational Waves
- NPR TED Radio Hour: Tabetha Boyajian: Did Amateur Astronomers Discover Aliens?
- The Advocate: LIGO gravitational wave detection wins 2017 Nobel Prize in Physics
- The Advocate: Hugs, handshakes at LIGO in Livingston with news of Nobel Prize win for detecting gravitational waves

Events