

Weekly Calendar & News

October 16-21, 2017

Departmental Colloquium

Observations of a Binary Neutron Star Merger

Joseph Giaime

LIGO/Louisiana State University

Host: Juhan Frank

3:30 PM Thursday, October 26, 2017

109 Nichols on Hall

- Refreshments served at 3:10 PM in 232 (Library) Nichols on Hall •

On August 17, 2017, three gravitational-wave detectors, many electromagnetic instruments and optical telescopes, saw the merger of a binary neutron star system and its aftermath. These observations and those from numerous follow-up observations, some of which continue to this day, have allowed interpretation of what happened to this system around 130-140 Million years ago. Starting with the gravitational-wave observation by the LIGO /Virgo partners, I will attempt to give an overview of this very exciting birth of a kind of multi-messenger astronomy.

LSU Physics & Astronomy in the News

- **LIGO: [LIGO-Virgo Scientists Detect First Gravitational Waves from Neutron Stars](#)**

New Publications

- **Xun Jia, Shuyuan Zhang, Raman Sankar, Fang-Cheng Chou, Weihua Wang, K. Kempa, E. W. Plummer, Jiandi Zhang, Xuetao Zhu, and Jiandong Guo, “An Anomalous Acoustic Surface Plasmon from Topologically Protected States,” Phys. Rev. Lett. 119, 136805 (2017).**
- **Lin Li, Zhaoliang Liao, Zhenyu Diao, Rongying Jin, E. W. Plummer, Jiandong Guo, and Jiandi Zhang, “Reentrance of Insulating Phase of La₂/3Sr₁/3MnO₃(110) Thin Film at Low Temperature,” Phys. Rev. Materials 1, 034405 (2017).**
- **Fengmiao Li, Shanming Li, Zhenzhong Yang, Yan Liang, Qinghua Zhang, Fang Yang, Wentao Li, Xuetao Zhu, Lin Gu, Jiandi Zhang, E. W. Plummer, and Jiandong Guo, “d-Doping of Oxygen Vacancies in Epitaxial Oxide Films Dictated by Thermodynamics,” AIP ADVANCES 7, 065001 (2017).**

Events

- **Saturday Science with Dr. Schaefer! (See attached flyer)**
 - **When: Saturday, October 21, 10-11am**
 - **Where: Nicholson Hall Room 130**
- **Landolt Astronomical Observatory Public Observing: Saturn and the Quarter Moon**
 - **When: Saturday, October 28th, 7:00-8:00pm**
 - **Where: Nicholson Hall Roof - Landolt Observatory**

Admission is FREE and you need not bring anything. The Landolt Astronomical Observatory is located on the LSU campus on the roof of Nicholson Hall on Tower Dr. immediately west of the LSU Student Union (across Tower Dr.). Convenient parking is located in the lot immediately south of Nicholson Hall (this lot is between Nicholson Hall and Howe-Russell Geoscience Complex). Parking in the lot is free and open after business hours and on weekends. Entry to the building should be by the door in the middle of the south side of Nicholson Hall. People will then be directed to climb the stairs up to the roof.

SATURDAY SCIENCE

Solar Eclipses That Changed History

A free public lecture by
Dr. Bradley E. Schaefer



About the Lecture

In addition to being a Distinguished Professor and Alumni Professor in the Department of Physics & Astronomy at LSU, Dr. Brad Schaefer has been an amateur astronomer since the seventh grade.

Two months ago, on 21 August, many of us saw the Moon pass in front of the Sun in a solar eclipse. In modern times, eclipses are events of joy and wonder, but in not-so-old times, eclipses were viewed as deeply bad omens in the sky. Indeed, solar eclipses look like the death of some 'sun god', and were always the most fearsome and evil of celestial omens. As such, eclipses have made history, in famous events involving Columbus, Tecumseh, the Peloponnesian War, General Gordon, Nat Turner, and Albert Einstein. Einstein got involved when his prediction from General Relativity was that stars near the eclipsed Sun would be slightly shifted outwards. Einstein's prediction was famously tested by Sir Arthur Eddington at a solar eclipse in Brazil in May 1919, with Einstein being gloriously verified. Starting in the 1970's, huge numbers of people started going to see totality, to see the beauty and awesomeness and grandeur. This all climaxed on 21 August, when about 7 million people travelled to see the eclipse. Dr. Schaefer was one of them, going to Casper, Wyoming, where he made his own experimental test of Einstein's General Relativity, with modern equipment that made a test ~100× more sensitive than any previous Eddington's Eclipse Experiment.

21 October 2017, 10-11:00 a.m.

Room 130 Nicholson Hall, LSU

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