



College of
Science
Department of Physics
& Astronomy

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Weekly Calendar

August 29 – September 2, 2016

Departmental Colloquium

"Major Results from the Exploration of the Pluto System"

10: 00 - 11:00 am, Friday, Sept. 2, 2016

435 Nicholson Hall

S. Alan Stern

PI, NASA's New Horizons Mission / Southwest Research Institute

Host: Geoffrey Clayton

New Horizons made the first exploration of the Pluto system—in 2015, culminating with a highly successful flyby deep inside the orbits of all five of Pluto's moons on July 14th, 2015. This presentation will begin by summarizing the mission and then instrument payload's capabilities. I will then provide a survey of results obtained about Pluto's satellite system, the planet itself, Pluto's atmosphere and solar wind interactions, the complex distribution of surface compositions, and a variety of interesting geological features on its surface. I also show how the crater size frequency distribution on Pluto's surface has shed new light on the small body population of the Kuiper Belt. I will close describing the science New Horizons will do in its just-approved Kuiper Belt Extended Mission through 2021.

Max Goodrich Distinguished Lecture Series

"The Exploration of Pluto by NASA's New Horizons"

2:00 pm Friday, Sept. 2, 2016

Hill Memorial Library

S. Alan Stern

PI, NASA's New Horizons Mission / Southwest Research Institute

Host: Geoffrey Clayton

MAX GOODRICH DISTINGUISHED LECTURE SERIES



The Exploration of Pluto by NASA's New Horizons

PUBLIC LECTURE by **S. Alan Stern**

PI, NASA's New Horizons Mission
Southwest Research Institute

Dr. S. Alan Stern
PI, NASA's New
Horizons Mission
SRI

Stern earned his
Ph.D. from the
University of
Colorado Boulder
in 1989.

TIME Magazine
named Stern one of
this year's 100 most
influential people.

Friday
Sept. 2,
2:00 P.M.
Hill Memorial
Library

New Horizons is NASA's historic mission to explore the Pluto system and the Kuiper Belt. The fastest spacecraft ever launched, New Horizons left Earth on 19 January 2006. It made the first exploration of the Pluto system—3 billion miles from Earth—last summer, culminating with a highly successful flyby inside the orbits of all five of Pluto's moons on 14 July 2015.



Dr. Stern will describe the history of the mission, the encounter with planet Pluto, and the major scientific discoveries made to date, and the public reaction to the flyby.

LSU

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LSU Science Café with Dr. Pullin

“String Theory?”

5:00-7:00 pm Tuesday, August 30, 2016

Doors open at 5 p.m. for free food and networking, and the talk will start at 6 p.m.

Schlitz & Giggles - 2355 Ferndale Avenue, Baton Rouge, LA 70808

This SciArt Conversation features physicist Jorge Pullin and violist Elias Goldstein. Dr. Pullin will tell us about String Theory and why Loop Quantum Gravity might be a better explanation for the same fundamental questions about the universe; while Dr. Goldstein will tell us why many musicians believe that it is impossible to play Paganini Caprices on the viola, and will demonstrate, on his viola, how he has been proving that this string theory needs revision. SciArt Conversations is a co-production of the LSU School of Theatre and College of Science.

New Publications

- "[Symmetry-guided large-scale shell-model theory](#)" Kristina D. Launey, Tomas Dytrych, and Jerry P. Draayer. Prog. Part. Nucl. Phys. 89 (2016) 101-136
- "[Analytical model for ion stopping power and range in the therapeutic energy interval for beams of hydrogen and heavier ions](#)" William Donahue, Wayne D Newhauser and James F Ziegler. Institute of Physics and Engineering in Medicine Physics in Medicine and Biology, Volume 61, Number 17
- "[Event ontology in quantum mechanics and downward causation](#)" Rodolfo Gambini and Jorge Pullin, International Journal of quantum foundations 2, 89 (2016)
- "[Decays of the Three Top Contributors to the Reactor \$\nu^-e\$ High-Energy Spectrum, Rb92, Y96gs, and Cs142, Studied with Total Absorption Spectroscopy](#)", B.C. Rasco, E. F. Zganjar, J.C. Blackmon, et, al. Phys. Rev. Lett. 117, 092501
- "[Universal collisionless transport of graphene](#)". Julia M. Link, Peter P. Orth, Daniel E. Sheehy, and Jörg Schmalian. Phys. Rev. B 93, 235447