THE DEPARTMENT OF PHYSICS AND ASTRONOMY PRESENTS
A SERIES OF LECTURES, DEMONSTRATIONS, AND FILMS

WHAT PHYSICISTS DO

“How only is the Universe stranger than we think, it is stranger than we can think.” - Werner Heisenberg

EIGHTY-NINTH SERIES
Spring 2015

Current Series in PDF  History of the Series

Mondays at 4:00 p.m.  Darwin 103  Coffee at 3:30 p.m.

Feb 2  THE MARTIAN
New York Times Bestselling Author Andy Weir will be joining us via Skype to discuss his debut novel and soon to be major motion picture, “The Martian.” The son of a particle physicist, Mr. Weir is a software engineer and a self-confessed “space nerd.” Mr. Weir has combined science and a survival story into a compelling work of fiction.

Feb 9  COSMOS - "THE ELECTRIC BOY"
A viewing of an episode of the documentary series Cosmos: A Spacetime Odyssey. Explores the connection between 19th century physicist Michael Faraday and our modern world of high technology and instantaneous electronic communication.

Feb 16  CUBESATS FOR EARTH IMAGING
Planet Labs co-founder and CTO Chris Boshuizen will discuss their plans to deploy an Earth-imaging satellite network via CubeSats.

Feb 23  BRINGING STAR POWER TO EARTH
Dr. Jim Gaffney of LLNL discusses the world's largest and most energetic laser system, the National Ignition Facility (NIF). NIF's goal of driving thermonuclear fusion between isotopes of hydrogen could pave the way for nearly limitless, clean nuclear energy.

Mar 9  THE UC DAVIS D-LAB: INTERDISCIPLINARY PROJECT-BASED LEARNING
Dr. Kurt Kornbluth discuss examples of critical thinking, design, and innovation from the UC Davis D-Lab. He will highlight projects in developed and developing countries focused on Sustainable Energy and Agriculture, promoting Human Animal, and Environmental Health.

Mar 23  STRANGENESS, CHARM AND BEAUTY IN PARTICLE PHYSICS
Dr. Vera Lüth of Stanford University will reflect on her career in particle physics, discussing Charge-Parity Violation, detector innovations and B decays.

Mar 30  THE CHANGING ROLE OF BIOMEDICAL PHYSICS IN MEDICINE
Dr. Amir Huda of CSU-Fresno will present an overview of how the concepts and methods of physics are used to diagnose, manage, and treat human diseases.

Apr 6  ADVANCED LIGO AND THE SEARCH FOR GRAVITATIONAL WAVES
Dr. Norma Robertson (Caltech and the University of Glasgow) will review the search for gravitational waves, and in particular discuss the Advanced LIGO detectors which are expected to carry out their first observational run during 2015.

Apr 13  MAKING FUELS FROM SUNLIGHT, WATER AND AIR
Dr. Frances A. Houle, from Lawrence Berkeley National Laboratory, will discuss her work on Artificial Photosynthesis.

Apr 20  THE FUTURE OF ENERGY
Dr. Frank Shu of UC San Diego is a preeminent Astrophysicist who has turned his attention to alternative energies in an effort to make an impact on climate change.

Apr 27  LIGHT FROM DISTANT SUPERNOVAE
Dr. Xiaosheng Huang of the University of San Francisco will talk about Type Ia supernovae, the most powerful of all astronomical standard candles used to measure distances of far away galaxies.

This series is supported by private donations and Instructionally Related Activities funds.

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