

Jonathan Feng
Professor of Physics and Astronomy
University of California, Irvine

Jonathan Feng studied physics and mathematics at Harvard and Cambridge. While in England, he also played the trumpet in weekly brass concerts, often from the spires of cathedrals and contemplated joining Stephen Hawking's research group. However, he was drawn back to Stanford and the Stanford Linear Accelerator Center for his Ph.D. After research appointments at UC Berkeley, the Institute for Advanced Study, Princeton, and MIT, he joined the faculty at UC Irvine in 2002. In 2006 he was appointed Professor of Physics and Astronomy and Chancellor's Fellow.

Feng's research interests are unusually broad, spanning a number of areas in particle physics, astroparticle physics, and cosmology. He has worked on theories of extra spatial dimensions, supersymmetry, ultra-high energy cosmic rays, dark matter, flavor physics, and particle colliders. In recent years, his work has been particularly focused on the interface between particle physics and cosmology.

Feng's research has been recognized by a number of awards and honors. He is a Fellow of the American Physical Society and has received a Kavli Frontier Fellowship from the National Academy of Sciences, a Sloan Fellowship, an NSF CAREER Award, and the Outstanding Young Researcher Award from the Overseas Chinese Physics Association. He has advised the Department of Energy, National Science Foundation, and NASA through service on numerous panels, and has served as a faculty mentor for UC Irvine's QuarkNet, a program designed to bring the excitement of frontier research to high school physics teachers and their students.

Tonight's Lecture
What's the Matter? The Search for Clues
in our Cold, Dark Universe

In recent years, studies of the universe at the smallest and largest length scales have become intimately connected. The most powerful microscopes, in the form of particle colliders, are providing windows on the Universe just a fraction of a second after the Big Bang. At the same time, the world's largest telescopes have weighed the Universe and determined that the known particles make up only a small percentage of its mass, providing overwhelming evidence for new particles and forces at the smallest length scales.

Professor Feng will describe the connections between large and small in physics and its implications for the matter content of the Universe. Current evidence suggests that atoms make up only 1/6 of the matter in the Universe, with the rest provisionally given the name "dark matter." Professor Feng will present the evidence for dark matter, explain current ideas for what this dark matter might be, and describe some of the experiments that are designed to search for the most promising candidates.

Heinz R. Pagels Memorial Lecture Series

These free public lectures are designed to bring new research in physics to a general audience. Heinz Pagels was a professor of physics at Rockefeller University, president of the New York Academy of Science, a trustee of the Aspen Institute, and a member of the Aspen Center for Physics for twenty years, serving as a participant, officer, and trustee. A part-time local resident, Professor Pagels died here in a mountaineering accident. His family and friends instituted the lecture series in his honor because he devoted a substantial part of his life to effective public dissemination of scientific knowledge.

Special Event

Thursday, July 22, 5:30
Physics Ctr, 6th & Gillespie Robert Dijkgraaf, University of Amsterdam
Co-Chair of InterAcademy Council
*Advising the UN International Panel on
Climate Change*

Refreshments will be served on the lawn after the talk

2010 Heinz R. Pagels Public Lectures

Wednesday, August 4, 6:30
Paepcke Auditorium R. Shankar, Yale University
FROM 0 TO c IN 60 MINUTES
*A crash course in Einstein featuring planes,
trains and automobiles*

Wednesday, August 11, 6:30
Paepcke Auditorium Mike Freedman, Microsoft Station Q
*The Limits of Knowledge: Philosophical and
practical aspects of building a quantum
computer*

Wednesday, August 25, 6:30
Paepcke Auditorium Eric Dufresne, Yale University
*Birds do it, bees do it: Physics and the art of
attracting a mate*

2010 Public Dialogues

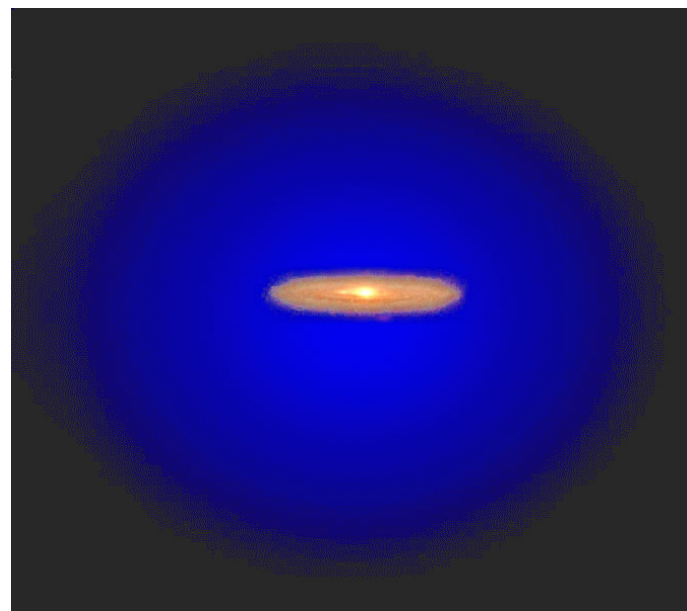
Thursday, July 15, 5:30
Physics Ctr, 6th & Gillespie Maria Spiropulu, Caltech
The LHC

Thursday, July 29, 5:30
Physics Ctr, 6th & Gillespie Ady Stern, Weizmann Institute of Science
*Quantum Electronics and the Shackles of
Practicality*

The Nick DeWolfe Foundation has archived all past lectures on our website at www.aspenphys.org. Current lectures air on Grassroots TV at 9:00 PM Mondays and 7:00 PM Wednesdays. Public lectures continue in the winter. If you would like to receive the schedule, please email patty@aspenphys.org. The Aspen Center for Physics is a Colorado not-for-profit 501(c)3 corporation supported by the National Science Foundation, the Department of Energy and private, tax-deductible donations.



What's the Matter? The Search for Clues in our Cold, Dark Universe



Jonathan Feng Professor of Physics and Astronomy University of California, Irvine

Aspen Center for Physics
700 West Gillespie Street * Aspen, CO 81611
970.925.2585
www.aspenphys.org