



[Member Login](#)

[Print Page](#) [Email Page](#)

- » [Home](#)
- » [About the NAS](#)
- » [Members](#)
- » [Nomination and Election](#)
- » [Awards](#)
- » [Publications](#)
- » [National Academies Studies](#)

#### ACTIVITIES

- » [Koshland Science Museum](#)
- » [Evolution Resources](#)
- » [Sackler Colloquia](#)
- » [Kavli Frontiers of Science](#)
  - » [US Frontiers](#)
  - » [Chinese-American Frontiers](#)
  - » [German-American Frontiers](#)
  - » [Indo-US Frontiers](#)
  - » [Japanese-American Frontiers](#)
  - » [UK-US Frontiers](#)
- » [Keck Futures Initiative](#)
- » [Exhibitions and Cultural Programs](#)
- » [Distinctive Voices@The Beckman Center](#)
- » [Committee on Human Rights](#)

## Kavli Frontiers of Science Symposium Series

### Eighteenth Annual US Kavli Frontiers of Science Symposium

National Academy of Sciences  
November 2-4, 2006  
Irvine, California

#### Testing Extra Dimensions

[-Presentation](#)

Jonathan Feng, University of California, Irvine

Please click on the above link to watch the presentation - both slides and audio. This presentation file is in [Flash](#) format, available free online.

The question of how many spatial dimensions there are is among the most tantalizing issues in particle physics and cosmology. In particular, extra dimensions may help explain key features of our world, such as the weakness of gravity and the existence of dark matter. I will discuss these problems, the role of extra dimensions in proposed solutions, and the implications for a wide variety of near future experiments.

#### Review Articles

Black Holes Made Here (Deliveries begin in 2007), By Karen Wright, DISCOVER Vol. 25 No. 06, June 2004. [http://hep.ps.uci.edu/~jlf/research/overview/press/bh\\_0406discover.pdf](http://hep.ps.uci.edu/~jlf/research/overview/press/bh_0406discover.pdf)

Searching for gravity's hidden strength., Feng JL., Science. 2003 Oct 31;302(5646):795-7. <http://www.sciencemag.org/cgi/content/full/302/5646/795>

Delving Into Extra Dimensions, Naeye, Robert, Sky and Telescope, volume 105, number 6, page 38. June 2003. [http://hep.ps.uci.edu/~jlf/research/overview/press/bh\\_0305skyandtele\\_color.pdf](http://hep.ps.uci.edu/~jlf/research/overview/press/bh_0305skyandtele_color.pdf)

#### Related Links:

#### Watch Cutting Edge Science on the Web

#### US Frontiers (2005):

- Addiction: Proximate Mechanisms and Ultimate Causes
- Design Principles of the Brain
- Do Black Holes Destroy Information?
- Frontiers in Synthetic Chemistry and Biology
- Micro RNA / SiRNA
- Past Earths
- Robot Learning
- What's Driving Climate Change?

#### German-American Frontiers (2005):

- Complex Networks
- Endosymbiosis: Its Impact on the Evolution of Life
- Objects and Attention
- Protein Folding
- Seafloor Hydrothermal Systems
- Smart Antibiotics
- Ultrafast Phenomena with Light Pulses
- Why so many Species? The Origin of Biodiversity

#### Japanese-American Frontiers (2004):

- Algorithmic Approaches to Music Composition and Performance
- Carbon Nanotubes and Nanowires
- Cosmic Microwave

[Background / Age of the Universe](#)

[Mars](#)

[Social Networks](#)

[Stem Cells and Genetic Reprogramming](#)

[Synapse and Psychiatry](#)

[Ultra-High Precise Measurements](#)

---

[National Academy of Sciences](#)

[500 Fifth Street, NW  
Washington, DC 20001](#)

[Terms of Use and Privacy Policy](#)

[Contact Us | Site Map](#)

[Printer Friendly Version](#)