KAVLI INSTITUTE FOR THEORETICAL PHYSICS Presents

The Forty-Third KITP Public Lecture

Sponsored by Friends of KITP

Adam Burrows

The New Century of Exoplanets

HE STUDY OF EXOPLANETS has emerged in the last decade to be one of the most exciting new areas of astronomy and planetary science. Since 1995, more than 430 planets outside the solar system have been discovered. Collectively, they span a huge range of masses and orbital distances, have been found around most types of stars, and have led to major revisions in our ideas of how and where planets form. The majority of these planets are gas giants like Jupiter, but more than 60 are of Neptune mass. Excitingly, some of the recently discovered planets are near the mass and radius of the Earth. Hence, the pioneering era of exoplanets has commenced in earnest and promises to be a central focus of an increasing fraction of the world's astronomers for the foreseeable future. I will review the current state of this burgeoning field, what we have discovered to date, and what the future may hold as we accelerate the discovery of the myriad worlds now just over our horizon and coming fast into view.

About the Speaker

DR. ADAM BURROWS is a professor in the Department of Astrophysical Sciences at Princeton University. He received his undergraduate degree from the Princeton Physics department and his Ph.D. at the Massachusetts Institute of Technology. He is currently the Vice-Chair of the National Research Council Board on Physics and Astronomy (BPA), the BPA Liaison to the U.S. Decadal Survey Committee, a member of the AURA board, and on the Board of Trustees of the Aspen Center for Physics. In the past, he served as the chair of the Advisory Board of the Kavli Institute for Theoretical Physics (KITP) (2006-2007), as the co-chair of the NASA Universe Subcommittee (2004-2005), as the Chair of the NASA Origins Subcommittee (2004-2005), and as the Chair of the Theoretical Astrophysics Program of the University of Arizona (1992-2000), where he was a professor until January 2008. Dr. Burrows works on a variety of stellar astrophysics problems and puzzles, but his primary research interests are planets and supernovae.

Wednesday, April 7, 2010 8:00 PM (Reserved seats held until 7:50 PM)

Kavli Institute for Theoretical Physics, Main Seminar Room



Admission is Free Seating is by RSVP only Please e-mail: events@kitp.ucsb.edu or call (805) 893-6349 by April 1, 2010 Reserved seats are held until 7:50 PM

> To make special arrangements to accommodate a disability, call the KITP at the number above.

LOT 10 PARKING

From the roundabout at Hwy 217, turn right onto Mesa Rd, merge into left lane, turn left at the first light into Lot 10 parking structure. **PARK**, **BUY a \$3 permit** from the dispenser (near the elevator and stairs), **DISPLAY PERMIT** on dashboard. The KITP is right next door.

The KITP gratefully acknowledges its many friends in the community.

