KAVLI INSTITUTE FOR THEORETICAL PHYSICS

Presents

The Sixty-Ninth KITP Public Lecture

Sponsored by Friends of KITP

Asimina Arvanitaki

Novel Directions in the Search for New Physics

The Standard Model has been successful in describing phenomena that we observe from galactic down to subatomic scales. Nevertheless, it is not complete. The extreme weakness of gravity or the nature of Dark Matter are examples of puzzles that suggest the presence of new physics. Traditionally, we look for answers at colliders. In the last few years, we realized some of these answers may come from black holes or from precision experiments that look for the tiny signals with which new physics may manifest itself.

About the Speaker

Asimina Arvanitaki (PhD Stanford University, 2008) is the Stavros Niarchos Foundation Aristarchos Chair in Theoretical Physics at Perimeter Institute, where she has been a faculty member since 2014. Arvanitaki is a particle physicist who specializes in designing new experiments to test fundamental theories beyond the Standard Model. These experiments rely on the latest developments in metrology, such as atomic clocks, and the optical trapping and cooling of macroscopic objects. She has also shown that astrophysical black holes can probe the presence of ultra-light particles through the effect of black hole superradiance. In 2016, she received the New Horizons Prize in Fundamental Physics from the Breakthrough Foundation.

Wednesday, April 18, 2018

7:00 PM (reserved seats held until 6:50 PM)

Join us now for Public Lectures at 7:00 PM — a new, earlier start time

The Kavli Institute for Theoretical Physics, Kohn Hall, Main Seminar Room

Admission is Free

RSVP for Reserved Seating by

April 13, 2018

at:

http://www.kitp.ucsb.edu/public-lecture-rsvp

or call

(805) 893-6307

Reserved seats are held until 6:50 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 the left lane, and turn left at the first light into Lot 10 parking structure. **PARK**, **BUY a $4 permit** from the dispenser (near the elevator and stairs), and **DISPLAY PERMIT** on dashboard. The KITP is right next door, in Kohn Hall.

The KITP gratefully acknowledges its many friends in the community.

KITP Public Lecture Series