KAVLI INSTITUTE FOR THEORETICAL PHYSICS

Presents

The Seventy Fourth KITP Public Lecture

Sponsored by Friends of KITP

Raman Sundrum

Fundamental Physics and the Fifth Dimension

The juncture of elementary particle physics, cosmology and gravitational wave research, the beauty of the fundamental laws of Nature as well as some remaining mysteries are ripe for experimental exploration. The question of whether the Higgs boson is elementary, or a composite of other constituents, may lie at the root of these mysteries. Higgs compositeness is a notoriously thorny paradigm to model directly, but it can be understood more readily in a "geometrized" form, framed in a higher-dimensional "warped" spacetime. This physics can be, and is being, searched for experimentally, and it could provide a stepping stone to yet further discoveries.

About the Speaker

Raman Sundrum is the John S. Toll Chair and Distinguished University Professor of Physics at the University of Maryland, College Park. He is currently the Director of the Maryland Center for Fundamental Physics. Sundrum is a theoretical particle physicist, primarily working on the structure of the fundamental forces of Nature and their connections to possible extensions of Relativistic Spacetime, such as Supersymmetry and Extra Dimensions. He also studies their possible roles in the very early Universe. His focus is on uncovering new mechanisms at the intersection of Quantum Mechanics and Relativity. Sundrum's research provides theoretical templates for a broad range of experiments, from searches for new particles at the CERN Laboratory's Large Hadron Collider to precision cosmological measurements.

Sundrum has been awarded Fellowships of the American Physical Society (APS) as well as the American Association for the Advancement of Science, and is the winner of the Department of Energy's Junior Investigator Award. This year, he was co-winner of the APS's J.J. Sakurai Prize for Theoretical Particle Physics.

Wednesday, July 10, 2019

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

Kavli Institute for Theoretical Physics, Main Seminar Room

Admission is Free

RSVP for Reserved Seating

by FRIDAY, July 5th

***at*:**

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

or call

(805) 893-63050

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