

Presents Exciting Keynote Speaker

*As part of our annual Industrial Affiliates Conference, you are cordially invited to this “universal” presentation in recognition of the recent detection of gravitational waves:*

Keynote Address by Rana Adhikari  
Professor of Physics  
California Institute of Technology



Title: “In Brightest Day and Blackest Night”

Date: May 19, 2017

Time: 2:00—3:00 pm

Location: 1003 Giedt Hall

Abstract

Nearly 100 years after being predicted by Albert Einstein, the LIGO project has detected gravitational radiation from outer space. The orbits and collisions of black holes from billions of years ago produce massive distortions in the spacetime continuum. These waves can now be detected on the earth using ultra-sensitive, kilometer scale, laser interferometers. A worldwide network of these machines is now opening up the field of gravitational wave astronomy.

In order to study the geometry of the universe and detailed nature of black holes, these interferometers have to be able to measure motions thousands of times smaller than a proton. I will describe what has been done to get to this level of sensitivity and what the next advances in materials science and metrology may yield in terms of fundamental physics and cosmology.

*Open to all UC Davis faculty, students and staff.*

*If you would also like to register for the Industrial Affiliates Conference, please visit website:*  
<http://www.ece.ucdavis.edu/ece/affiliates/meeting/>