



THE UNIVERSITY OF CHICAGO

COMPUTATIONAL AND APPLIED MATHEMATICS STUDENT SEMINAR

ZOHEYR DOCTOR

Kavli Institute for Cosmological Physics
University of Chicago

Gravitational Waves: Hearing Extreme Events in the Universe

THURSDAY, January 31, 2019, at 1:00 PM
Jones 226, 5747 South Ellis Avenue

ABSTRACT

Gravitational waves, predicted by Einstein a century ago, have become a new way for humanity to look at objects and events in space. In this talk, I will introduce gravitational waves and give an overview of what we have learned from detecting gravitational waves with the LIGO and Virgo interferometers. I will also describe recent techniques that my collaborators and I have developed to model gravitational waves and electromagnetic spectra using expensive simulations and Gaussian process regression.