



The University of Texas at Austin
Department of Physics
College of Natural Sciences

Colloquium

Wednesday, September 7, 2022

John Archibald Wheeler Lecture Hall

PMA 4.102, 4:00pm

When gravity waves

Prof. Nicolás Yunes

The University of Illinois Urbana-Champaign

Abstract

The recent gravitational wave observations of the collision of black holes and neutron stars have allowed us to pierce into the extreme gravity regime, where the gravitational interaction is simultaneously unfathomably large and wildly dynamical. These gravitational waves encode a trove of information about physics that is prime for the taking, including potential revelations about the validity of Einstein's theory and about nuclear physics at low temperatures but exceedingly large densities and pressures. In this talk, I will describe some of the physics inferences we have made from gravitational wave observations, and the future inferences that will come next.