

Tuesday, December 1, 2:30 pm

Speaker: Gabriela Gonzalez

Institution: Louisiana State University

Title: Gravitational Waves Astronomy

Abstract: The first detection of gravitational waves in 2015 by the LIGO detectors, created by the merger of black holes more than a billion years ago, was followed by several other signals from black holes. In 2017, the merger of neutron stars was detected by LIGO and Virgo detectors and by gamma-ray telescopes, and was found by many electromagnetic observations too: a new era of gravitational wave astrophysics has started with very bright prospects for the future. LIGO and Virgo took data again for 11 months in 2019-2020, and many more merging black holes and neutron stars have been discovered. We will describe the technology involved in the LIGO gravitational wave detectors, details of the latest discoveries and the exciting prospects for more detections in the next years.