

ICTS SPECIAL COLLOQUIUM

COSMIC COLLISIONS -

Learning about black holes and neutron stars using gravitational waves

The observation of mergers of black holes and neutron stars has established gravitational-wave astronomy as a powerful tool to understand the Universe. After a brief introduction to gravitational waves and how the detectors work, I will discuss the insights that have come from the events identified thus far by the LIGO and Virgo Collaborations. In particular, I will discuss merger rate estimates, what we know about the mass distributions of compact binary systems, and what we have learned from multi-messenger observations of binary mergers.



Patrick Brady

University of Wisconsin-Milwaukee

Professor of Physics at the University of Wisconsin-Milwaukee and spokesperson of the LIGO Scientific Collaboration, Patrick Brady is broadly interested in theoretical and experimental aspects of gravitation and gravitational-wave astronomy. Brady received his PhD in Physics from the University of Alberta, working with Werner Israel. Brady is a recipient of Research Corporation Cottrell Scholar Award and Sloan Research Fellowship, and a co-recipient of the Special Breakthrough Prize in Fundamental Physics 2016, Gruber Cosmology prize 2016 for the recent discovery of gravitational waves.

3 pm, 31 July, 2019

Ramanujan Lecture Hall

ICTS Bengaluru