

# Astrophysical Sciences & Technology Center for Computational Relativity and Gravitation Colloquium

Monday • December 11, 2017 • 4:00PM • CAR 1275

## The Astrophysics of BH-BH/NS-NS Mergers with LIGO/Virgo

Dr. Belczynski will discuss the astrophysical importance of the recent LIGO/Virgo direct detections of gravitational-waves. Despite majority of the expectations, it was not neutron star mergers being detected first, but the series of exotic massive black hole mergers. He will describe the leading theories of the formation of such black hole systems. He will also comment on a detection of NS-NS merger. This particular detection may provide striking constraints on binary evolution. Several astrophysical implications are beginning to emerge despite the fact that the exact origin of LIGO/Virgo sources is not yet known.

**Chris Belczynski**  
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Bio: Dr. Belczynski's research interests include: Stellar and binary evolution, formation of compact objects, physics of gravitational-wave sources, populations of galactic and extragalactic X-ray binaries and progenitors of type Ia Supernovae.

