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## Astrophysics of Gravitational Waves

Friday, 16 November 2018, 14:30

Room A304

Detection of gravitational waves from merging binary black holes and neutron stars by the LIGO-Virgo observatories have opened up a new window to our observable universe. Understanding the astrophysical origins of binary black holes that would merge in the local universe is thus of great importance. My talk will specifically focus on the various formation channels of binary black holes in orbits close enough to merge within the Hubble time. Furthermore, I will discuss the differences in source properties detectable by LIGO and LISA (in future) that might shed light on the formation process of particular detected events. I will talk about sources of uncertainties in current theoretical predictions and how in the near future we can overcome some of them.