

## Invited Speaker

**Name:** [Alicia Sintes](#)

**Affiliation:** Universitat de les Illes Balears

**Title:** Present and future of gravitational wave astronomy

**Abstract:** Astrophysics is living a revolutionary epoch: new techniques, instruments and theories are providing for the first time truthful and coherent answers to great questions that humanity has been pursuing for centuries. Gravitational waves -ripples in the fabric of space-time- are now the new messengers that will allow us to open a new window onto the cosmos that could revolutionize our understanding of the Universe. The advanced detector network LIGO-Virgo-KAGRA has been making ground breaking discoveries since it switched on in 2015. From the first three observing runs, there have been many detections of signals produced by compact binary mergers. This talk will describe the status of the now-firmly-established field of gravitational wave astronomy, give some highlights of the current discoveries, and describe the role of our group.