

# Ground-based gravitational wave detectors and their capabilities through 2020

*Tuesday 5 February 2013 14:45 (45 minutes)*

In this talk I describe the advanced ground-based gravitational-wave detector projects (LIGO in the USA, VIRGO in Italy, GEO in Germany, KAGRA in Japan, LIGO in India), review their status and capabilities, and outline the different signal analysis methods and pipelines that are used. We expect that the first direct detections of gravitational waves (perhaps around 2017) will be from the coalescence and merger of binary neutron star pairs. Such events may also be accompanied by electromagnetic gamma-ray bursts.

**Presenter:** ALLEN, Bruce

**Session Classification:** Gravitational wave detection