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Astrophysical and cosmological results from compact binary coalescences

Friday 7 July 2017 16:45 (15 minutes)

Gravitational-wave astronomy has made a tremendous stride forward with detections during the first observing run of the Advanced Laser Interferometer Gravitational-wave Observatory (LIGO). The signals have been identified as originating from the merger of black holes, whose parameters it was possible to infer. This discovery has profound implications. Gravitational waves provide information on some of the most energetic astrophysical events, revealing unique insights into the nature of gravity and of our universe. In this talk I will describe how gravitational-wave signals are studied, and discuss the results of this analysis on LIGO's first observations.

Experimental Collaboration

LIGO Virgo Collaboration

Presenters: Dr RAYMOND, Vivien (Max Planck Institute for Gravitational Physics); RAYMOND, Vivien (Max Planck Institute for Gravitational Physics)

Session Classification: Cosmology, dark energy, gravitational waves

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