

Dawn of Gravitational – Wave Astronomy – Discoveries from the First Advanced LIGO Observing Run

On September 14, 2015 and again on December 26, 2015 the two detectors of the Laser Interferometer Gravitational-Wave Observatory (LIGO) simultaneously observed transient gravitational-wave signals. The detected waveforms indicate the inspiral and merger of pairs of massive black holes more than 1 billion years ago. These discoveries mark the first direct detections of gravitational waves and the first observations of binary black hole mergers. The inferred properties of these exotic stellar systems will be presented.