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LIGO and the First Direct Observations of Gravitational Waves

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Einstein first predicted the existence of gravitational waves in 1916. A century later, the Advanced LIGO experiment observed these space-time ripples directly for the first time. This talk will provide an overview of the two binary black hole mergers observed by LIGO so far, along with some of the resulting astrophysical consequences of these observations. The current status of Advanced LIGO's second observation run and prospects for the future of the nascent field of gravitational wave astronomy will also be briefly discussed.