

Colliding Black Holes & Convulsions in Space-time

The First Observation of Gravitational Waves by LIGO - On September 14, 2015, scientists from the LIGO Scientific Collaboration and the Virgo Collaboration observed the collision and fusion of the two black holes by directly measuring the gravitational waves emitted during the collision using the LIGO detectors. This detection comes 100 years after Einstein developed his revolutionary general theory of relativity that predicted their existence, and 50 years after scientists began searching for them. This discovery has truly profound implications. Gravitational waves provide unique information on the most energetic astrophysical events, revealing insights into the nature of gravity, matter, space, and time. We have opened a new window on the cosmos. I will talk about how we made the detection and discuss how gravitational astronomy promises to change our understanding of universe