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Advanced LIGO detectors and the birth of Gravitational Wave astronomy

SIDDHARTH SONI, Louisiana State University

The gravitational wave (GW) detections made by the Advanced LIGO and Advanced Virgo in the last few years have given birth to the field of GW astronomy. Gravitational waves are generated during some of the most extreme events in our Universe, such as the collision of compact binaries. Since the first detection in Sept 2015, LIGO and Virgo detectors have identified many more GW signals, most of them from the merger of binary black holes. These detections have expanded our knowledge of compact binaries and, at the same time, have inspired us to ask more questions. In this talk, we will look at the history of GW detectors, how they work, and some of the recent discoveries made by them.