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Status of Advanced LIGO detectors

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It has been almost 100 years since Einstein predicted gravitational waves as a consequence of his theory of general relativity. Gravitational waves are "ripples of space-time," where the space time changes like a fabric and its ripples propagate at the speed of light across the universe. There is strong evidence for their existence from observations of binary pulsar systems, however, the actual distortions of the space time have not been directly detect yet. Gravitational waves are produced by drastic astrophysical phenomena such as core-collapse supernova and collisions of neutron stars and black holes. Detecting and studying gravitational waves will give us new views of the universe. Advanced LIGO project started in 2010, aiming for the first detections and for starting the new gravitational-wave astrophysics. The detectors will be ready for the first science observation in the next year. In this talk, the current status and prospects for detections will be presented.