

Abstract Submitted
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Status of Advanced LIGO MICHAEL LANDRY, LIGO Hanford Observatory/Caltech, LIGO SCIENTIFIC COLLABORATION COLLABORATION — Installation of Advanced LIGO, a second-generation interferometric gravitational wave observatory, began in earnest in October of 2010. Initial LIGO instrumentation was de-installed, vacuum chambers and envelope modified, and the installation of scientific payloads begun. At LIGO Hanford Observatory, optics and suspensions comprising one of two 4km Fabry-Perot arms have been deployed and commissioned, resonating green light in an experiment to test and understand the process of controlling cavity lengths (“lock acquisition”). At LIGO Livingston, cornerstation optic and seismic isolation installation has matured such that the primary infrared laser and a suspended mode cleaner cavity (employed to spacially clean the interferometer input beam) are locked and under commissioning test. In this talk we present the status of Advanced LIGO installation and integration, and sketch the promising future of gravitational wave observation and astronomy.

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