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LIGO: Next Steps

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In October 2010, the LIGO Scientific Collaboration will have completed it's sixth science run (S6). More than a calendar year's worth of data have been collected, which overlaps the VSR2 and VSR3 science runs of the Virgo Scientific Collaboration. Joint analyses of the S6, VSR2 and VSR3 data sets are ongoing. Next steps include the three-year installation of Advanced LIGO, and the commissioning of these second generation interferometers to their design sensitivities. In this talk we review the status of LIGO and searches for gravitational waves, with special emphasis on Advanced LIGO and the prospect for first detection, and transition to observational gravitational wave astronomy.

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