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### **The LIGO Detectors: Sensitivity and Challenges**

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The LIGO instruments have made possible the now common detection of gravitational waves, advancing our astrophysical understanding. The cadence of LIGO operations is of interspersed data taking and instrumental upgrades, allowing for enhancements in sensitivity in each subsequent observing run. I will give an overview of the LIGO detectors, highlighting some of the successes in sensitivity improvements, and also some of the current and future technical challenges for some of the most intricate instruments ever constructed.

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