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Gravitational Wave Astronomy and Astrophysics: A Status Report¹

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The LIGO, GEO and Virgo gravitational wave detectors have collected a few years of data with good sensitivity and have carried out searches for several types of gravitational-wave signals. I will highlight a few search results obtained so far which shed light on plausible astrophysical sources. The detectors are currently undergoing major upgrades and will run again as Advanced LIGO and Advanced Virgo beginning around 2015. I will describe several areas of astrophysics which will be opened up by the future data.

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