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## Searching for the stochastic background with Advanced LIGO and Virgo

*Saturday 13 July 2019 09:20 (20 minutes)*

Detecting and characterizing the stochastic gravitational-wave background is a target for future ground-based gravitational-wave detectors. In this talk I will present an overview of a cross-correlation based analysis that has been applied to gravitational-wave data. I will then present upper limits obtained by Advanced LIGO and Advanced Virgo in the most recent observing run on isotropic and anisotropic stochastic backgrounds. I will discuss the implications of these results for models of the background from compact binaries and cosmic strings. Finally, I will discuss upper limits on correlated magnetic noise due to geophysical Schumann resonances, and comment on strategies to mitigate the effects of this noise in future runs.

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