APR06-2006-000840

Abstract for an Invited Paper for the APR06 Meeting of the American Physical Society

Results from LIGO observations II

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The Laser Interferometer Gravitational-wave Observatory (LIGO) detectors have reached their design sensitivity, and searches for gravitational waves are ongoing. We highlight current attempts to detect two classes of target signals. One class is unmodeled sub-second bursts of gravitational radiation, such as from core-collapse supernovae, the merger phase of coalescing binaries, and gamma-ray bursters. The second class is a stochastic background of gravitational waves of cosmological origin, which would provide a unique view of conditions in the very early universe. We summarize the current status of efforts to detect such signals, and comment briefly on the future prospects for these searches.

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