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LIGO+Virgo Search for Gravitational-Wave Bursts Associated with GRBs[1] PETER SHAWHAN, University of Maryland, LIGO SCIENTIFIC COLLABORATION, VIRGO COLLABORATION — Gamma-ray bursts are remarkable astrophysical events which emit vast amounts of energy in a short period of time, and likely progenitors are expected to emit gravitational waves (GWs) as well. The long-soft GRBs which make up the majority of the known population are generally believed to come from collapsing massive stars, and there are multiple possible mechanisms for GW emission which could be detectable from a sufficiently close source. Starting with the reported times and sky positions of over 150 GRBs in 2009-2010, we have searched for GW signals in data from the LIGO and Virgo detectors using a coherent "burst" search algorithm that can efficiently detect transient GW signals with arbitrary waveforms. I will discuss how the analysis has been optimized and present the latest search results.

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