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**A New Template Bank for LIGO's PyGRB Medium Latency Searches** MICHAEL PATEL, Christopher Newport University, LIGO — In 2017, LIGO and Virgo observed a gravitational wave that was spatially and temporally coincident with a short burst of gamma radiation. Since this first coincident detection, much work has been done in using gamma-ray bursts to trigger searches for gravitational waves within the LIGO/Virgo data. These searches rely on a process of matched filtering, wherein signals are matched to template waveforms. The goal of this research is finding a more optimal set of templates for rapid followup searches; one that minimizes the analysis time while sacrificing a minimal amount of detection sensitivity.

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