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The MBTA Pipeline for Detecting Compact Binary Coalescences in the Third LIGO-Virgo Observing Run

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As the sensitivity of existing ground-based detectors increases and new detectors appear, the number of gravitational-wave detections from compact binary mergers is also increasing. A low latency detection of these sources is primordial to increase the chances of observing counterparts, and an offline search allows for better exploitation of the data. In this talk, I will present how the Multi-Band Template Analysis (MBTA) online and offline pipelines have contributed to detections during the third LIGO-Virgo observing run (O3). These two searches must deal with a network of detectors with heterogeneous sensitivities and non-stationarities. I will discuss the solutions we have chosen to face these challenges and talk about the performance of the analysis during O3.

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