The all-sky search for unmodeled gravitational-wave transients with Advanced LIGO-Virgo

RYAN LYNCH, Massachusetts Inst of Tech-MIT, LIGO-VIRGO COLLABORATION (LVC) COLLABORATION — Gravitational-wave astronomy has been enlightened by recent detections of the merger of compact stellar remnants by the advanced LIGO-Virgo detectors. In addition to these mergers, future detections by LIGO-Virgo may include the core-collapse of massive stars, transient neutron star phenomena, cosmic string cusps and other as yet unknown sources. Searches for this latter category of transients often make minimal assumptions regarding their exact waveform morphologies, and are thus referred to as unmodeled searches. The network of the Advanced LIGO-Virgo gravitational-wave detectors completed in August 2017 its second observing run ("O2"). In this talk, we present the status of the O2 searches for unmodeled gravitational-wave transients and plans for the upcoming third observing run ("O3") expected to commence in late 2018.

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