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Characterization of the Omicron Trigger Generator and Transient Analysis of aLIGO Data HUNTER GABBARD, Univ of Mississippi, LIGO COLLABORATION — Omicron is a burst-type trigger generator. We performed coincidence tests between Omicron generated triggers of ER5 LIGO data and various types of injection wave forms (Sine-Gaussian, White-Noise-Burst, and String Cusp) using a Coincidence Finder program that we developed. Through these tests we determined the efficiency at which the Omicron trigger generator is able to detect specific transient events with varying sets of parameters. We tested and debugged a new version of Omicron and utilized Omicron to perform a close analysis of lock time data at the gravitational wave detector in Livingston, Louisiana. From this analysis we were able to classify noise events and determine several of their sources.

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