

Impact of Physically Motivated Calibration Errors on Core-Collapse Supernova Searches

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Currently, calibration errors in gravitational wave detectors are often modelled through an amplitude scaling and time jittering. While this is a valid approximation for narrowband signals, it might not be sufficient for broadband signals such as core-collapse supernovae (CCSNe). In this work, we present a plugin for coherent WaveBurst that uses the most accurate estimates of calibration uncertainty in the LIGO detectors. The effect of these calibration errors is demonstrated on the O3 targeted CCSN search.

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