Application of the Maximum Entropy method to data from the LIGO gravitational wave detectors

CHRISTOPHER GREENLEY, Andrews University, LIGO SCIENTIFIC COLLABORATION — We apply the Maximum Entropy method, a coherent data analysis method for retrieving a common signal measured by a network of detectors, to data taken by the LIGO detectors during Science Run 5. The method is applied to data from hardware injection times when the detector mirrors were physically moved to simulate a gravitational wave detection. Comparison between the injection signal waveform and that recovered by Maximum Entropy provides a test of the method.

Supported by NSF grant PHY-0969810