Abstract Submitted
for the APR16 Meeting of
The American Physical Society

BayesWave Analysis for LIGO Detector Characterization JOEY SHAPIRO KEY, University of Texas Rio Grande Valley, LIGO SCIENTIFIC COLLABORATION, VIRGO COLLABORATION — The Advanced LIGO gravitational wave detectors successfully collected data during the first observing run (O1) September 2015 to January 2016. The Bayesian inference wavelet decomposition algorithm BayesWave uses a phenomenological parameterized model to characterize the data. Among the BayesWave products are reconstructed waveforms and spectral analysis of instrument noise transients (glitches). The BayesWave analysis contributes to our understanding of the LIGO instrument and our ability to distinguish instrument glitches from burst sources of gravitational waves. Preliminary BayesWave analysis of the LIGO O1 data will be presented.

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Date submitted: 08 Jan 2016 Electronic form version 1.4