Abstract Submitted
for the APR15 Meeting of
The American Physical Society

Waveform reconstruction with coherent WaveBurst algorithm
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of Florida, GIOVANNI ANDREA PRODI, MARIA CONCETTA TRINGALI, Universita' degli studi di Trento, GABRIELE VEDOVATO, INFN - Padova — The
coherent WaveBurst (cWB) algorithm uses a coherent method for detection and reconstruction of transient gravitational wave signals (bursts) by using the constrained
likelihood method. The likelihood statistic is built up as a coherent sum over detector responses in the time frequency domain and represents the total signal-to-noise
ratio of the GW signal detected in the network. The reconstruction of a GW event
by the pipeline includes both the sky location and the signal waveforms. Once the
first GW signal is detected, the astrophysical interpretation and the characterization
of the emission will depend on the reliability of the waveform reconstruction process.
The performances of the pipeline on the reconstruction of the signal parameters is
reported.

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Date submitted: 09 Jan 2015   Electronic form version 1.4