

Title: Full coherent searches for continuous gravitational waves with the LIGO second observing run

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We present the latest results of searches for continuous gravitational waves (CWs) which may be emitted by known pulsars asymmetric about their spin axes. Two types of searches, referred as targeted and narrow-band, will be considered with their application to LIGO-Virgo O2 data. The use of fully-coherent matched filtering makes these the most sensitive type of CW search. For the targeted analysis, we present the application of three different pipelines for 222 pulsars with rotational frequencies above 10 Hz for which updated ephemerides were available, and also consider CW emission from pulsars with a small wobble angle. For the narrow-band analysis, we present the results of searches for 33 radio-pulsars for which a possible phase mismatch ( $\sim 0.5$  Hz) between the ephemerides and the CW signal is allowed. No detection of CW signal is claimed. Upper limits on the CW amplitude and neutron star ellipticity are presented and discussed.