

Abstract Submitted
for the APR05 Meeting of
The American Physical Society

Searching for gravitational radiation from known radio pulsars using LIGO data¹ BRIAN O'REILLY, Caltech LIGO Livingston Observatory, LIGO SCIENTIFIC COLLABORATION — The LIGO gravitational wave detectors are now regularly performing science observation runs as they approach their final design sensitivity. Here we present results from the second run (2003) in which we performed a deep search for gravitational waves from 28 isolated pulsars, including the Crab pulsar. The expected signal was derived by combining a theoretical model of gravitational wave emission from a non-axially symmetric spinning neutron star with timing data from radio observations of the pulsars. Although no signals were detected the observations imply that the equators of the four closest pulsars are circular to better than 1 part in 10^5 . Projected sensitivities from subsequent science runs will also be discussed.

¹on behalf of the LIGO Scientific Collaboration

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Date submitted: 18 Jan 2005

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