

Abstract Submitted  
for the APR12 Meeting of  
The American Physical Society

**Detecting and setting upper limits on continuous gravitational waves from unknown spinning neutron stars in binary systems** EVAN GOETZ, Albert Einstein Institute, Max Planck Institute for Gravitational Physics, KEITH RILES, University of Michigan — An all-sky search for continuous gravitational waves from neutron stars in binary systems is notorious for its computational challenge. The TwoSpect algorithm exploits the periodic orbital modulation of the source waves by searching for patterns in doubly-Fourier transformed data. We present results from simulated data showing the upper-limit sensitivity attainable and successful detections of simulated signals by the TwoSpect search method.

Evan Goetz  
Albert Einstein Institute, Max Planck Institute for Gravitational Physics

Date submitted: 05 Jan 2012

Electronic form version 1.4