TwoSpect: an all-sky search for continuous gravitational waves from neutron stars in binary systems EVAN GOETZ, KEITH RILES, University of Michigan — An all-sky search for continuous gravitational waves from binary pulsars is notorious for its computational challenge. We present a new hierarchical method called TwoSpect, which we propose for such a search. The search exploits the periodic orbital modulations of the source waves by searching for patterns in doubly-Fourier-transformed data. The algorithm will be described and sensitivity estimates presented.

Evan Goetz
University of Michigan

Date submitted: 09 Jan 2009   Electronic form version 1.4