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Testing a computationally efficient algorithm for detecting gravitational waves from neutron stars in binary systems EVAN GOETZ, Albert Einstein Institute, 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 gravitational wave detector data showing the efficacy of the TwoSpect search method.

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