

Abstract Submitted
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Astrometric Effects of a Stochastic Gravitational Wave Background LAURA BOOK, California Institute of Technology, EANNA FLANAGAN, Cornell University — A stochastic gravitational wave background causes the apparent positions of distant sources to fluctuate, with angular deflections of order the characteristic strain amplitude of the gravitational waves. These fluctuations may be detectable with high precision astrometry, as first suggested by Braginsky et al. in 1990. In this talk I will present our results for the expected statistical properties of such an astrometric signal caused by a stochastic gravitational wave background, as well as the prospects for detecting it using next-generation astrometric surveys.

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