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LISA observations of eccentric LIGO sources JEREMY SCHNITTMAN, NASA Goddard Space Flight Center — Stellar-mass binary black holes are expected to have nearly circular orbits by the time they enter the LIGO band. Yet many years before merger, they will reside in the low-frequency band accessible to LISA, and may well retain significant eccentricity. We explore the statistical properties of such a population of sources, the expected signal-to-noise ratio of this population in LISA, and discuss the astrophysical implications of measuring non-zero eccentricity leading up to merger.

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