

Abstract Submitted  
for the APR10 Meeting of  
The American Physical Society

**Extracting accretion disk radii from LISA observations of accreting binary star systems** SHANE LARSON, Utah State University — LISA will be sensitive to a wide range of ultra-compact binary star systems in the Milky Way. A handful of these binaries will be *verification binaries* – systems which can be seen electromagnetically, and individually resolved and characterized in the LISA data stream. This multi-messenger characterization of these systems provides a useful synergy of observing capabilities that can be exploited to recover detailed information about the underlying astrophysical processes in the binary. This poster discusses how simultaneous photon and EM observations can be used to study mass transferring system and characterize parameters such as the mass transfer rate and radius of accretion disks around the primary.

Shane Larson  
Utah State University

Date submitted: 23 Oct 2009

Electronic form version 1.4