

The formation and long-term evolution of circumbinary planetary systems across the H-R diagram

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Don't FORCES It - Toward an occurrence rate of transiting TESS CBPs

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NASA's Transiting Exoplanet Survey Satellite (TESS) has revolutionized our understanding of nearby low-mass stars, providing a wealth of data for exploring planetary systems in unprecedented detail. We can leverage this excellent dataset to study TESS's sample of low-mass M+M binaries, which offers interesting cross-sectional science merit from both stellar and planetary perspectives. I am investigating the occurrence rate of circumbinary planets (CBPs) in low-mass M+M binaries, a population which has not yet been explored in previous studies. In this talk, I will briefly motivate the study of transiting CBPs, with special focus on new science with M+M binaries. I will then discuss my work to characterize eclipsing binaries and outline my transit search methodology, which I have termed "FORCES". I will present current progress towards finding the occurrence rate of transiting CBPs with TESS.

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