

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

Contribution ID: 14

Type: **not specified**

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

*Wednesday 15 January 2025 11:35 (20 minutes)*

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.

**Presenter:** ODDO, Dominic

**Session Classification:** MS systems