

Search for Eccentric Accretions in Kepler Binary Systems

Kahihikolo, Kaimi

A study is being presented on observations of Kepler eclipsing binaries to study eccentric accretions. This study was done on binary systems KIC: 04848423, 010480952, 04157488, 4908495, 6620003, and 7605600. Using archived data provided by Villanova University's Kepler eclipsing binary catalog this project was completed, data was then analyzed in Python and Excel spreadsheets. The selected systems were analyzed to study eccentric accretions. In the end, these mass transfers were not detected in 3 of the selected systems –K1, K2, and K3. But, was observed in 3 of the systems –K4, K5, and K6. Further analysis of the systems yielded the mass accretion rate.