

Abstract Submitted
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The HAT-P-7 and HAT-P-11 Star-Planet Systems JENNIFER MEDINA, MARIA MANRIQUE, WALTER VAN HAMME, Florida Intl Univ — Radial velocities and *KEPLER* light curves of the transiting exoplanets HAT-P-7b and HAT-P-11b are analyzed using a general binary star model. The HAT-P-7 system has been a subject of interest due to the irregular orbit of the HAT-P-7b exoplanet with respect to its parent star. HAT-P-7b's orbit has shed light on the diversity of systems that exist in our observable Universe. HAT-P-11 hosts a K type variable star which we were able to analyze with a fourier fit on the light curve data. It is also a host to exoplanet HAT-P-11b which has a slightly inclined orbit. Using our own software, we have calculated the parameters for star-planet pair of HAT-P-7 and HAT-P-11. This presents another way for astronomers to study these complex systems.

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