Identifying Extra Solar Planets and their Key Features using the Doppler Wobble and Planetary Transits Methods

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1/1/2023

Abstract

This is the abstract

Introduction and Background

Aims

Understand the effect of Doppler shifts on the intensity of stellar spectra and use the Python scipy.optimize library to determine "best-fit" radial velocities from high- resolution spectra observed at different epochs Derive a radial velocity curve i.e. radial velocity as a function of orbital phase for each star, and use fitting to estimate the amplitude of each curve Estimate the mass and semi-major axis of each planet

Method

Results

Analysis

Discussion

Conclusion

References

Introduction and Background

Aims

Obtain a phase-folded photometric light curve for a star with a transiting planetary companion. Use this to estimate the radius and orbital semi-major axis of the planet Apply the method of least-squares to estimate mean apparent magnitudes during the transit and non-transit phase. Hence estimate the radius of the planet

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