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Lightcurve and Color Index of Jupiter Trojans in L5 from ZTF Observations

We present an analysis of observations pointing on the trailing L5 cloud using the Zwicky Transient Facility in early Oct and Nov of 2024. The obtained images with the g' and r' filter allowed for the measurement of g – r color. We detected 579 Trojans in the observed fields, and the median value of g'-r' color is 0.633 ± 0.094 . Because each target had at least five g-r data sets and therefore some of them would have more data points allowing them to determine the rotation period. We found the derived period is consistent with Asteroid Lightcurve Database (LCDB). The absolution magnitude can be derived and the size distribution in L4 will be derived and compared to the other survey.

Section

Solar System/Exoplanets

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