
Photometric Analysis of a CoRoT candidate

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Abstract

In this communication we report some results on the candidate CoRoT ID:105118236 complementary to those obtained by the CoRoT Exoplanets Science Team (CEST; see Csizmadia et al. this conference).

The cleaned data, free from spurious effects as hot pixels, interference of AAS, etc. were taken from the ViZieR website.

We confirm the periodic variation of ~ 9 days, attributed to stellar rotation. The detection of the transits is a more difficult task, but the signal due the transits of a companion with period of ~ 5.8 days can be seen when the data set is rebinned. However, even with the rebinned data, some transits are missing.

We also worked the data out of the transits, in an attempt to detect some dynamical effects in light curve, like beaming, ellipsoidal variability, etc. However the detection of these effects is impaired by the beat between the orbital period of the companion and the harmonics of the rotation.

In addition we include results on the dynamics of the system putting into evidence the effects of the tidal acceleration of the star rotation and the braking linked to the star's activity.

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