

Origin of TIC 229741985 variability

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The shape of the light curve and the time scales of brightness variations are the main defining factors for classification of variable stars. However, different variability mechanisms can produce light curves of similar shape and period, hindering the determination of their origin. I will discuss the origin of TIC 229741985 variability. Based on TESS photometry, the star can be classified either as an eclipsing binary of W UMa type or delta Sct pulsator. By using TESS mission photometry, original spectroscopic observations, and database data I give a proof that the object cannot be a binary but a star of delta Sct. I will demonstrate the difficulties of the classification based purely on the single-band photometry.

Author: Ms ŠÍPKOVÁ, Ema (Masaryk University, Brno, Czech Republic)

Presenter: Ms ŠÍPKOVÁ, Ema (Masaryk University, Brno, Czech Republic)

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