
Project Dwarf: ground-based search for circumbinary planets

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Abstract

Ground-based photometric campaign Dwarf is presented. The principal goal is the search for circumbinary planets using accurate minima timing of selected low-mass eclipsing binaries. The observations are performed within an extensive network of relatively small to medium-size telescopes with apertures of 20-200 cm. The object sample consists of (i) low-mass eclipsing binaries with M and K components, (ii) short-period binaries with a sdB or sdO component, and (iii) post-common-envelope systems containing a WD, which enable to determine minima with high precision. The amplitude of the timing signal increases with the orbital period of an invisible third component. Thus the timescale of the project is long, at least 5-10 years. The selection of the most advantageous targets, and the first results of the observations are presented.

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