

Contributed Talk

Splinter HotStars

NEWS FROM THE EREBOS PROJECT

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Common envelope ejection triggered by a close companion is regarded as most probable formation channel for hot subdwarf stars (sdO/Bs), which are stripped cores of red giant stars, as the fraction of close binaries with periods of 1.5 h to about 1 day is with 50% much higher than in standard stellar evolution. Of special interest are hereby eclipsing post-common envelope systems with hot subdwarf stars and cool low-mass companions (HW Vir systems), as they are perfect systems to study the influence of cool, low-mass companions on stellar evolution. They are easily discovered by their characteristic lightcurves with the eclipses and the prominent reflection effect. By systematically investigating the lightcurves provided by the OGLE survey we discovered 90 new HW Vir systems additionally to the only 17 systems that were published before. We were awarded with a ESO Large Program for a spectroscopic follow-up of 23 of this systems. The main goal is to find the mass distribution of the companions to better understand which kind of companions are able to survive a common envelope phase and eject the envelope. Here we will give the current status of the project and the first results.