A BRIGHT, HOT WHITE DWARF WITH AN M DWARF COMPANION SHOWING A LARGE REFLECTION EFFECT

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The reflection effect is a unique light variation observed when a hot, compact object, like a white dwarf or hot subdwarf, is orbited in a very close orbit by a cool, low mass main-sequence companion of similar or larger radius. Due to the short orbit all of those systems went through a previous common envelope phase. In the EREBOS (Eclipsing reflection effect binaries from optical surveys) project we were searching for more systems showing eclipses and a significant reflection effect. The majority of our systems have hot subdwarf primaries, only 4% of our discovered reflection effect binaries have white dwarf primaries. One of those is EC12250-3026, which is a totally eclipsing 17.6 mag hot DA with an M dwarf companion with a period of 0.1235 d only 450 pc away. The spectra show clear signs of emission lines in the hydrogen lines. We will present our first preliminary results on this interesting system.

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