Accretion Disks in Massive Binary Systems

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Abstract. The results of our investigations of some massive close binaries (CB) (RY Sct, V448 Cyg, UU Cas and V455 Cyg), based on the photometric and spectroscopic observations indicate the existence of the accretion disk around the more massive component, located deep inside the Roche lobe. The light curve shapes of some of these systems are similar to the ones of the overcontact systems like W UMa, but the nature of these massive CBs is completely different. Here we present the models of these systems and their basic elements.

The topic of this talk has been already published in several papers - see e.g. Astronomical Journal, 136, pp. 767-772 (2008); MNRAS 396, pp. 1553-1558 (2009).