MODELING OF INTERACTING BINARY SYSTEMS

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Abstract. We present a summary of recent results and publications of the binary star research group within the project Stellar Physics at the Astronomical Observatory of Belgrade. Our study is mainly focused on close, interacting binary stars in various stages of mass transfer, from systems in deep overcontact configurations, to systems with accretion disks. The primary method of our research is modeling of interesting systems based on photometric and spectroscopic observations. Typically, this results in determination of physical parameters of the components and new insights on the nature of the complex interactions between them. The binary system model that we use for this purpose is currently being upgraded in order to accommodate high-precision satellite observations of planetary transits and stellar pulsations.

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