

Cataclysmic variable stars are semi-detached binary systems consisting of a white dwarf primary star and a late-type secondary star. The secondary star in these systems is overfilling its Roche lobe, which enables a mass transfer to occur between the components. The transferred matter forms an accretion disc around the white dwarf when no strong magnetic field is present. This thesis presents a study of four different cataclysmic variables using light-curve modelling of eclipses and Doppler tomography as the main methods of analysis. The systems selected for the study belong to different subtypes of cataclysmic variables, but all of them exhibit mass-transfer rates which put them close to a border between systems with stable and unstable accretion disc. Although each of the systems studied represents a different type of cataclysmic variables, the presented study shows that they share some common characteristics and that the study of such systems is important for understanding the evolution of cataclysmic variables and the physical processes connected with them.