

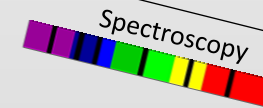
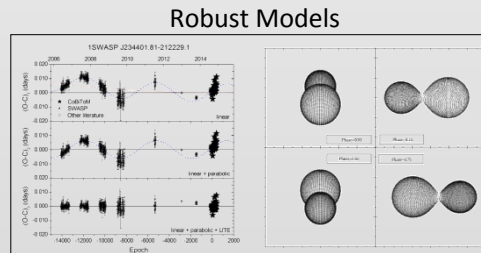
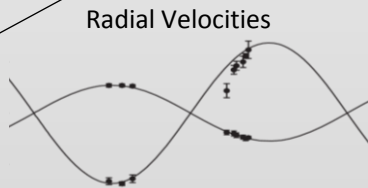
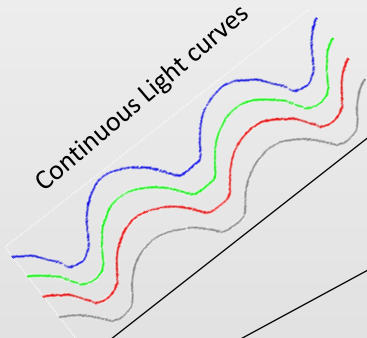
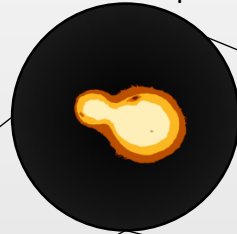
# CoBiToM Project

## Contact Binaries Towards Merging

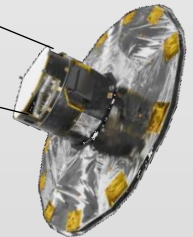
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Accurate Astrometry



The Contact Binaries Towards Merging (CoBiToM) Project focuses on contact binaries and multiple stellar systems, as a key for understanding stellar nature. The goal is to investigate stellar coalescence and merging processes, as the final state of stellar evolution of low-mass contact binary systems. Observational data of approximately 100 eclipsing binaries and multiple systems and more than 400 archival systems will be obtained. Additional photometric, spectroscopic and astrometric information will be provided by Gaia mission, which run for a certain period of time or they are currently operational. The programme aspires to give insights for their physical and orbital parameters and their temporal variations, e.g. the orbital period modulation, spot activity etc. Gravitational phenomena in multiple-star environments will be linked with stellar evolution. Further investigation will be performed upon the possibility of contact binaries to host planets, as well as the link between inflated hot Jupiters and stellar mergers. CoBiToM Project is based on a multi-method approach and a detailed investigation, that will shed light for the first time on the origin of stellar mergers and rapidly rotating stars.