

The formation and long-term evolution of circumbinary planetary systems across the H-R diagram

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Hydro simulations of circumbinary discs hosting circumbinary planets

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Formation and evolution of circumbinary planets are strongly related to the physics of their native circumbinary discs. Having a comprehensive picture of circumbinary discs is therefore a prerequisite for understanding these processes. Given the sensitivity of the circumbinary disc structure to the detailed disc physics, this requires realistic circumbinary disc modelling. In this talk, we will present recent models of circumbinary discs that incorporate both 3-dimensional effects and a realistic treatment of disc thermodynamics. We will present how these sophisticated models compare to traditional two-dimensional models, and discuss how they impact the in-situ and migration scenarios for the formation of circumbinary planets.

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