

Chopping and changing: How multiplicity shapes disc evolution

Thursday 28 August 2025 09:00 (40 minutes)

The last 10 years have brought spectacular images of discs around young stars. One of the main things we have learnt is that planet formation takes place already during the ‘violent’ phase of star formation, where interactions with other stars are important. This can help shed light on old mysteries in disc evolution, such as how accretion bursts and dust melting events may be triggered by stellar flybys. I will argue (controversially) that much of disc evolution might actually be controlled by tidal interactions, both from the inside and outside. If true, this would be a radical departure from a picture of steady viscous disc evolution over 10s of millions of years. I will also discuss how infall can dramatically change disc evolution, and why infall and multiplicity are correlated.

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Session Classification: Discs in multiple systems