Unveiling the early stages of planet formation

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Recent observations have revealed a surprising diversity in planetary systems, but the processes that shape them are still not fully understood. Key questions remain about how and when planets form, how they interact with their surrounding environment - the protoplanetary disk, birthplace of planets - and how these interactions affect both the planets and the disk. Protoplanetary disks evolve and dissipate as planets form, implying strong feedback between disk dynamics and planet formation. These interactions leave observable signatures in the disk structure, which are now routinely detected with high-resolution telescopes. In this talk, I will introduce the major open questions in planet formation and present recent observational results that shed light on the processes that lead to the formation of planets.