Protoplanetary disks and the dawn of planets

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Protoplanetary disks form as a consequence of angular momentum conservation as part of the star formation process. In later stages they are the birthplace of planetary systems. I will describe the observational properties of protoplanetary disks and their evolution focusing both on the solids (dust) and gaseous components. I will discuss the recent evidence for grain growth towards the formation of planetesimals and the observational constraints from disk observations on the core accretios and gravitational instabilities scenarios. I will mostly focus on the recent results from ALMA and provide an outlook on the critical observational tests that will be performed in the coming years.

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