Protoplanetary disks and planet formation

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Understanding the structure and composition of the protoplanetary disks surrounding low to intermediate mass stars is a prerequisite to constrain planets formation mechanisms. On one hand, ALMA produces unprecedented results, revealing fines structures like dust rings and gas spirals thanks to its resolving power. On the other hand, the NOEMA new correlator now enable to observe 4 GHz at 62.5 kHz in a single observation, opening the possibility to do large spectral surveys and thus to constrain the molecular content of the disks. In this talk I will review the latest main results.