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The role of magnetic fields during primordial star formation

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Although the initial strength of magnetic fields is very uncertain, they may have a significant impact on the dynamics in case of dynamo amplification. In this talk, I will review recent work regarding magnetic field amplification during primordial star formation, based on analytic calculations and numerical simulations involving MHD and self-gravity. I will discuss the influence of such magnetic fields on fragmentation and accretion in the protostellar disk, which is crucial for the final stellar masses and their observational signatures.

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