



Simulating Star Formation – an Overview from the Basics to the State-of-the-Art

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In this lecture I will give an overview on how to simulate star formation on scales of clumps and cores within molecular clouds and below. I will speak about cloud fragmentation and collapse. We will talk about the cloud (cores) energetics and initial conditions in this context. Further, I will discuss the current ideas on the origin of the stellar initial mass function (IMF) and how it is related with different types of stellar feedback. Stellar feedback also influences the gas in molecular clouds on larger scales. Here, I will speak about the initial phases of the large-scale feedback, particularly the feedback from massive stars, while I will only briefly touch upon the long-term impact of stellar feedback on galactic scales.