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The peak of the IMF explained by tidal forces

Wednesday, 2 October 2019 14:00 (20 minutes)

Understanding the stellar initial mass function has been a long standing problem in star formation. Recently, a new theory has been proposed that puts forward the idea that tidal forces caused by young stars prevent the formation of other stars within a certain radius. To study this, I ran a set of turbulent box simulations with ramses and analyzed the tidal field around new born stars. This gave us insight in how tidal forces can determine the mass of a star. In this talk I will present the simulations and discuss the results.

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