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MFM in OpenGadget3

Thursday, 1 August 2024 09:30 (30 minutes)

In this talk, I will present the current status of the implementation of Meshless Finite Mass (MFM) in OpenGadget3, which I implement as an alternative to the already implemented modern SPH solver.

MFM has several advantages over other solvers, such as developing mixing instabilities and capturing the power spectrum of subsonic turbulence. Thus, it also improves the description of turbulence in the ICM of galaxy clusters. I will show some applications on idealized setups and a study of turbulence in galaxy clusters, also comparing the impact of the hydrodynamical scheme.

Primary author: Mr GROTH, Frederick (University-Observatory Munich)

Presenter: Mr GROTH, Frederick (University-Observatory Munich)