

The Cosmological Simulation Code OpenGadget3

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We present the TreePM+SPH/MFM code OpenGadget3, developed by OATS, UniTS and LMU that will be publicly released in its full-feature version in June 2026.

We will get through the code structure and the physical modules it offers in a cosmological context, among which the gravity solver, the hydrodynamics with either SPH or MFM, the metal-dependent cooling with cosmological UV background, non-equilibrium chemistry and low-temperature molecular cooling, the stellar evolution and feedback (both energetic and chemical), black holes formation, accretion and feedback, and cosmic rays, to name a few.

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