

How to simulate the large-scale structure of the Universe - Part II

jeudi 5 juin 2025 16:30 (1h 30m)

Numerical simulations currently provide our most accurate predictions for structure formation in the Universe, in a wide range of scales and redshifts.

We will overview cosmological N-body simulations, discussing common assumptions, approximations and regime of applicability.

Furthermore, we will introduce the main hydrodynamical schemes, and review the sub-grid prescriptions used to model galaxy formation with its relevant astrophysical processes.

Finally, we will go through useful simulation post-processing techniques and tools for cosmological analyses.

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Classification de Session: COLOURS School