

Hands-on session on Cosmology

Lecturer: Antonio D. Montero Dorta

Practice: *Analysis of the Small MultiDark Planck (SMDPL) cosmological simulation*

Goals:

Familiarize with the analysis of N-body numerical simulations and perform clustering measurements using `CORRFUNC`

Files provided:

1. SMD_Mvir_XYZ.hdf5 (905 MB) — “entire box”
 2. mini_SMD_Mvir_XYZ.hdf5 (21 MB) — “mini box”
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Software needed:

1. Python (2.7 or later recommended)

2. Corrfunc (Correlation Function tool).

<https://corrfunc.readthedocs.io/en/master/>

Download and installation:

<https://corrfunc.readthedocs.io/en/master/install.html>

(Make sure all dependencies are installed. Run the integrated “test” suite to check that the package is installed correctly.)

3. Additional python packages:

numpy, h5py, matplotlib