

# Perturbation theory and excursion set estimates of the dark matter's PDF, and a method for reconstructing the initial PDF

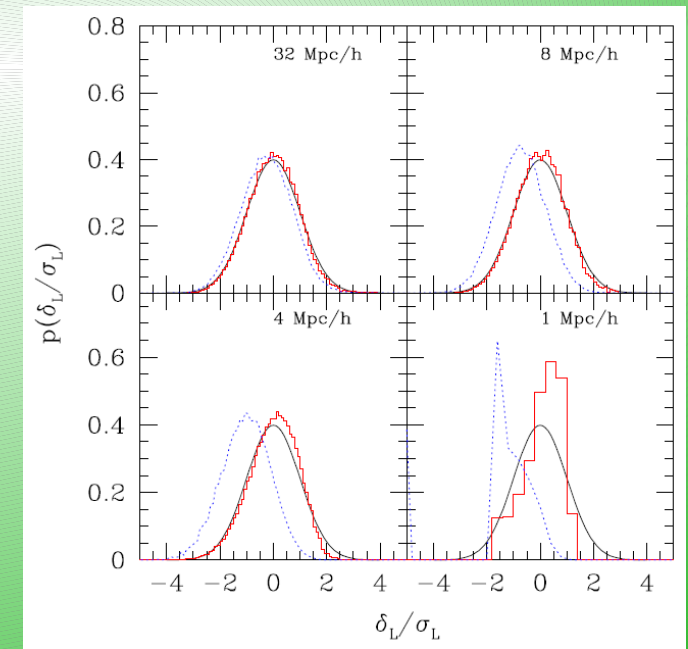
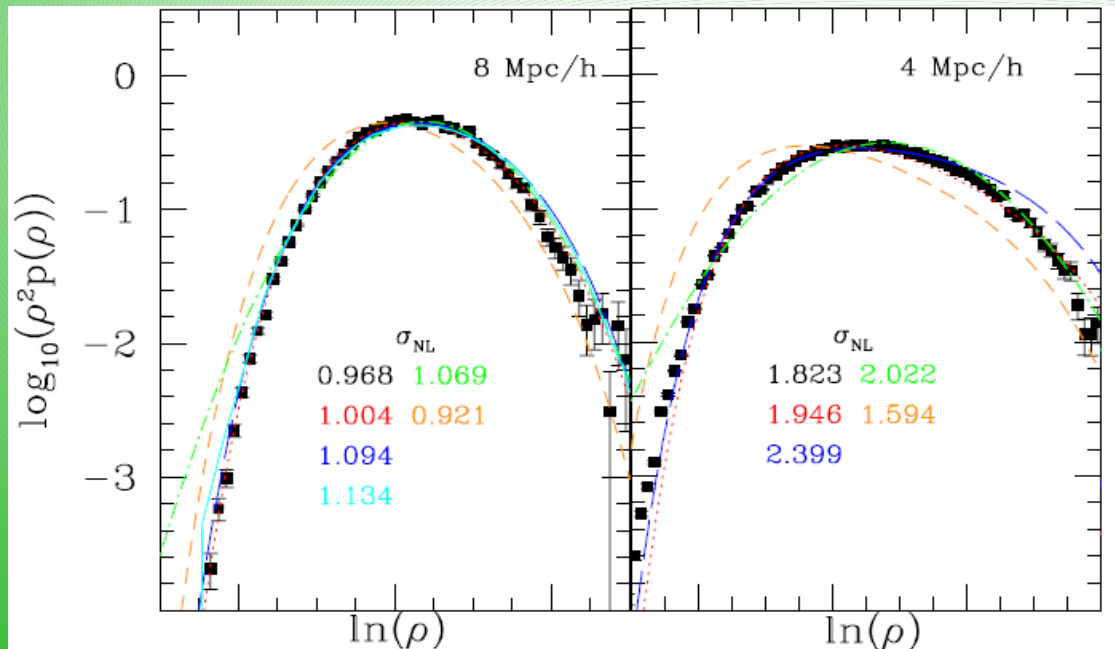
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## One-point function of nonlinear dark matter distribution

Statistics: *Perturbation theory vs Excursion set approach*

Dynamics: *Spherical Collapse vs Zeldovich Approximation vs Ellipsoidal Collapse*

## Reconstructing the initial distribution function



## Preliminary Result of redshift space PDF