

A visualization of the cosmic web, showing a complex network of dark matter filaments and galaxy clusters. The filaments are represented by a dense, interconnected web of thin, dark lines, while the galaxy clusters are shown as bright, yellowish-orange points of light. The overall structure is highly irregular and fractal-like, with many smaller clusters and filaments branching off from the main network.

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*Structure Formation & Evolution*

Dark Matter in Galaxy Clusters & Groups

Gravitational Lensing + {Simulations, X-ray, SZ...}

- \* **Mass Profile of Galaxies in High Density Environments (*kpc scale*)**
- \* **Mass Profile of Galaxy Clusters & Groups (*Mpc scale*)**
  - **Shape of DM ? Cored ?**
  - **Gravitational telescopes** 
- \* **Mass Discrepancies between different probes: beyond the spherical assumption -> Triaxiality**
- \* **Data Sets: Hubble Space Data + Ground based spectroscopy**  
(*Current = Hubble Frontier Fields, MACS, Buffalo*)

Every Day Work : Producing Mass Maps  
Trying to do some physics with that