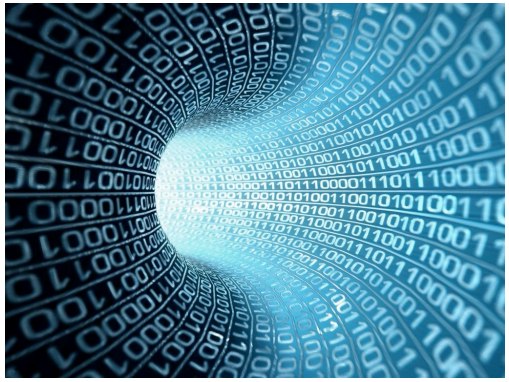
VO & Simulations

Jenny Sorce
Observatoire Astronomique de Strasbourg
Centre de Données Astronomiques de Strasbourg

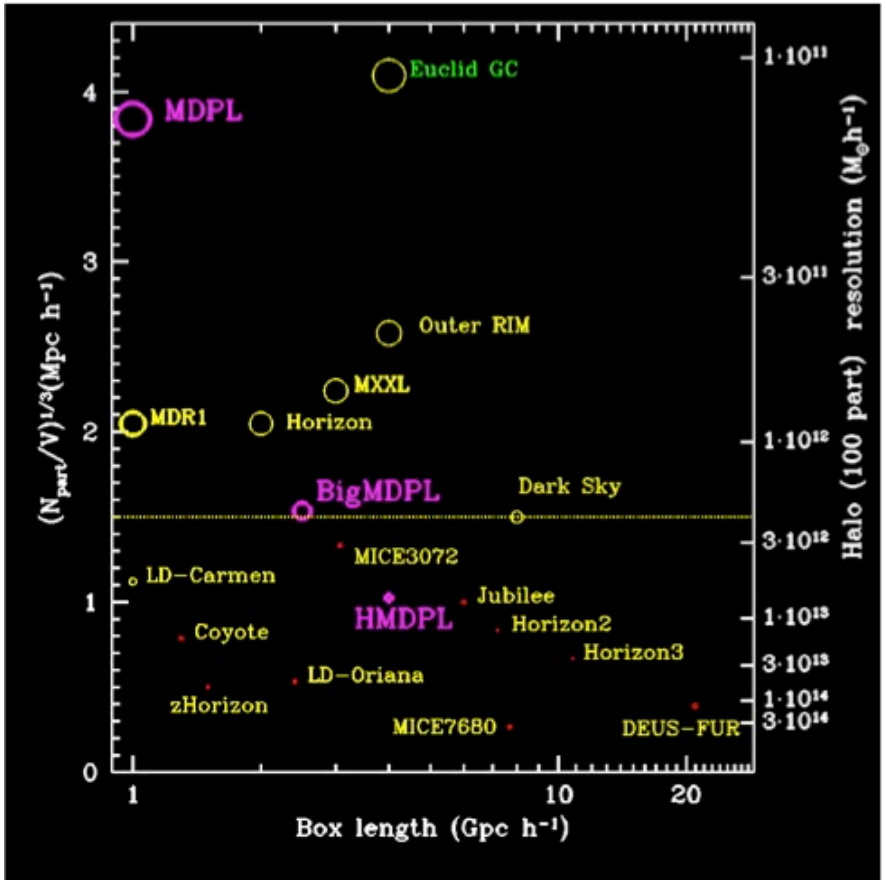
VO for simulations: different opportunities

- digest the huge amount of data
- models accessible (Franck Le Petit's talk)
- simulation data to test analysis/de-biasing methods
- observational data accessible



Huge amount of simulation data

- Larger and Larger boxsize
- Higher and Higher resolution
- More and more time steps
- More and more sophisticated models
- More and more different types



Courtesy of G. Yepes

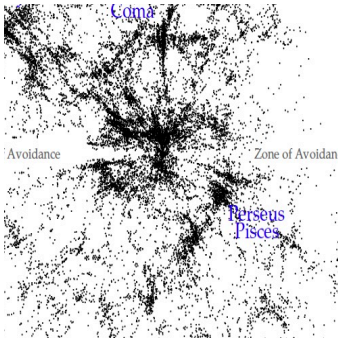
Huge amount of simulation data

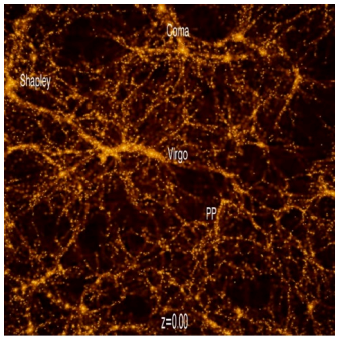
- More and more data to handle
- Data are not gathered in one place
- Lots of duplicates
- Complex transfer
- Difficult access
- Different databases

Solution = VO

Data access

- Aims: - compare the simulations (models)
  - compare simulations and observations to :
    - check the results obtained with models
    - test the methods to analyze/de-bias observations
    - particular study case (using resembling simulations)





- Problem: Simulation experts ≠ Observers

Solution = VO:

- ***Large repository of observational/simulation data***
- ***Data already analyzed and classified***
- ***User friendly tools (even for non-observers // non simulation experts)***

Conclusion: a two-sided gain

Simulations/Observations

Simulation Experts/Observers

Re-use of the observational/numerical data in new and novel ways (ASTERICS' goal)

Simulations become observations equal !

Numerical codes become instruments equal !

(roadmaps)

Thank you

xièxie