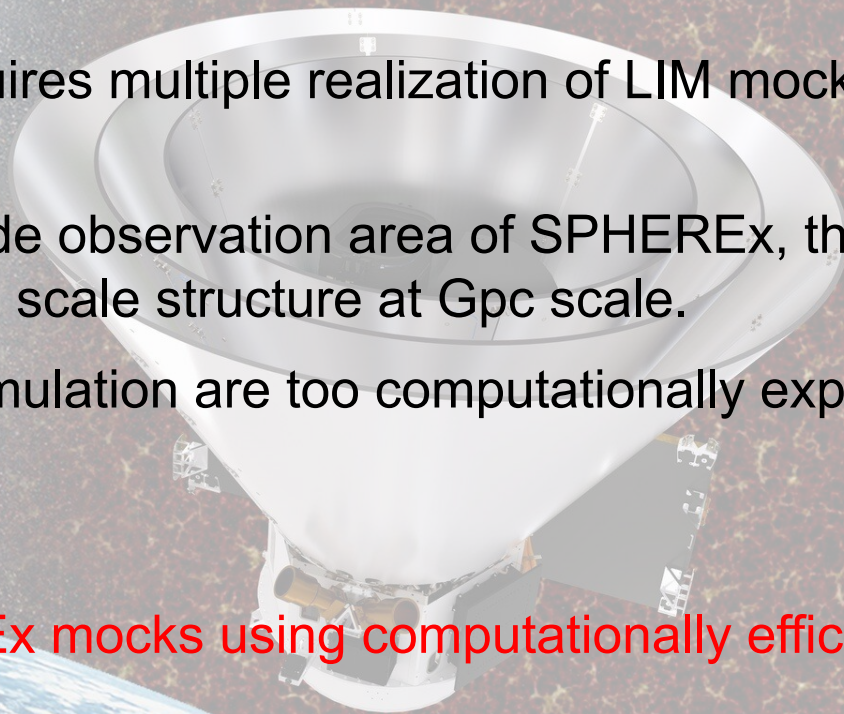


Is there a computationally efficient way to make SPHEREx mocks?

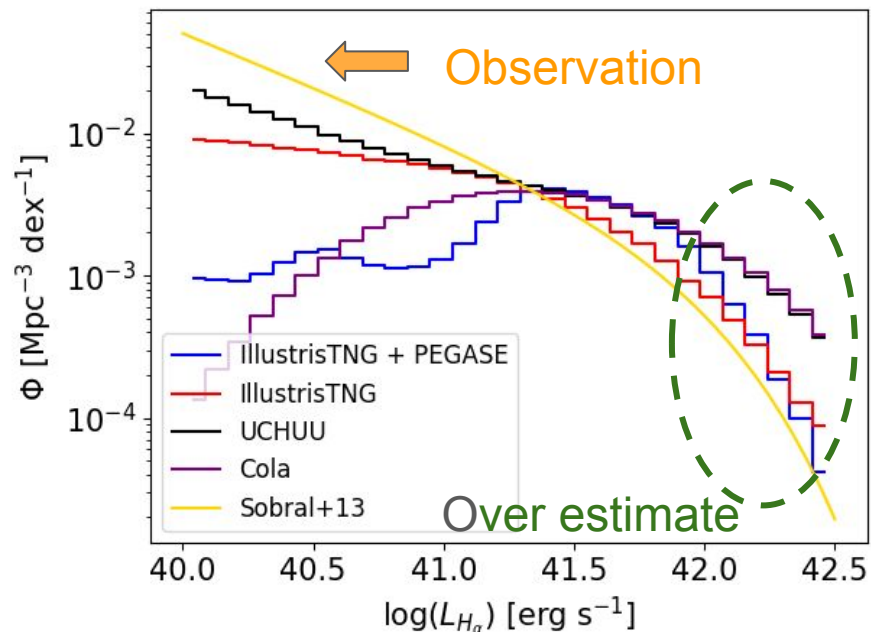
- Cosmological analysis requires multiple realization of LIM mocks for multiple cosmology.
- To fully make use of the wide observation area of SPHEREx, the mocks must also capture the large scale structure at Gpc scale.
- Current hydrodynamical simulation are too computationally expensive to fulfill these needs.

Can we make reliable SPHEREx mocks using computationally efficient dark matter only simulations?



Building LIM mocks for SPHEREx cosmology

H α luminosity function



2D Power spectrum

