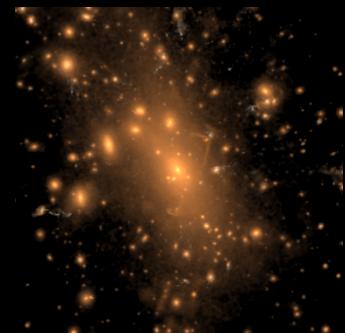
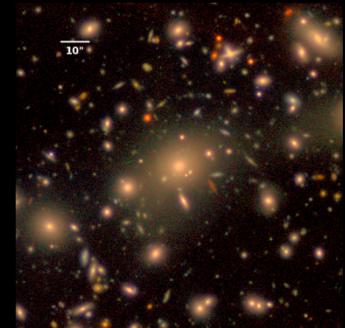


Stellar Profiles of Massive Galaxies:

Hyper Suprime-Cam Survey

VS.

Hydrodynamic Simulations



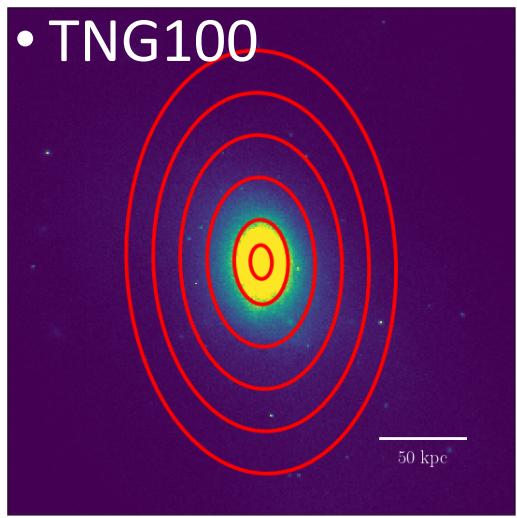
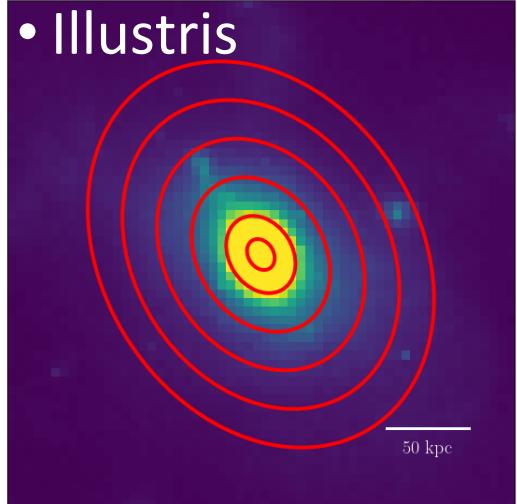
Felipe Ardila¹

Alexie Leauthaud¹, Song Huang¹,
Benedikt Diemer², Annalisa Pillepich³

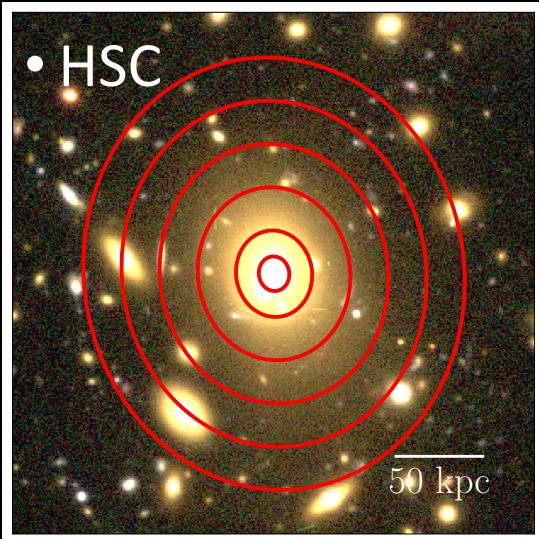
¹ UC Santa Cruz, ²CfA, ³MPIA



Hydrodynamic Simulations

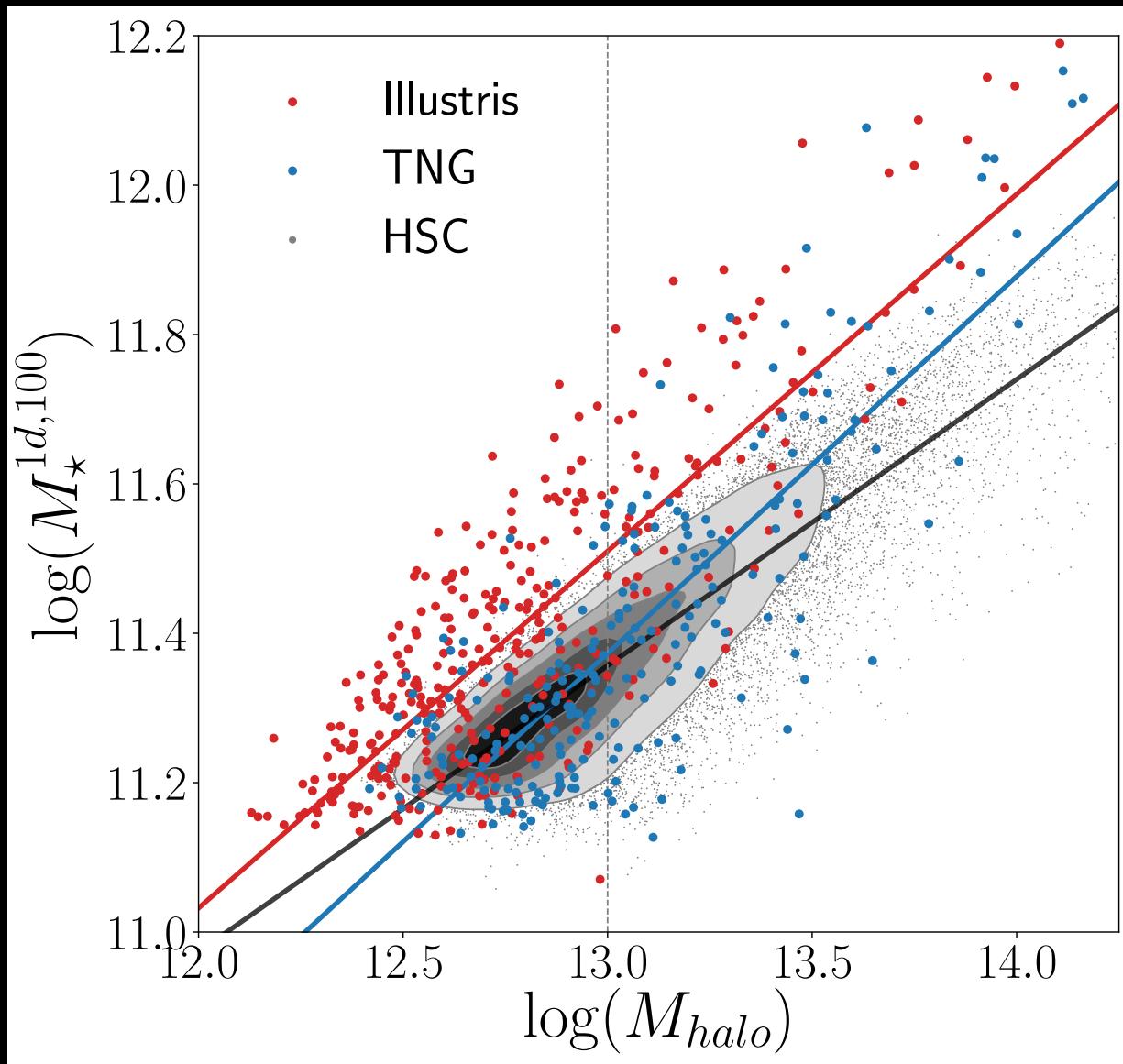


Observations

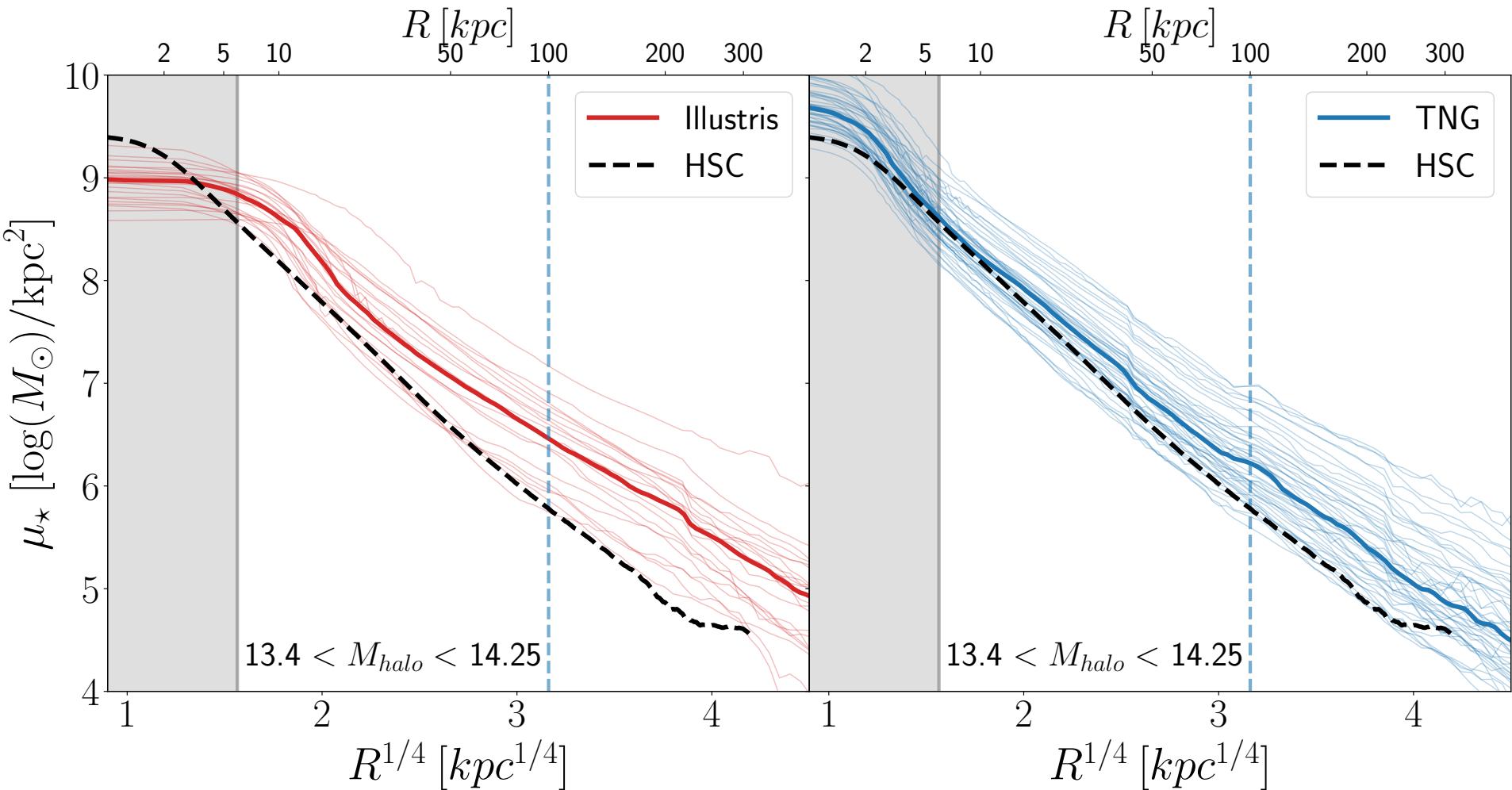


- Consistent methodology between observations and simulations
(Huang et al. 2018)
- Weak Lensing data

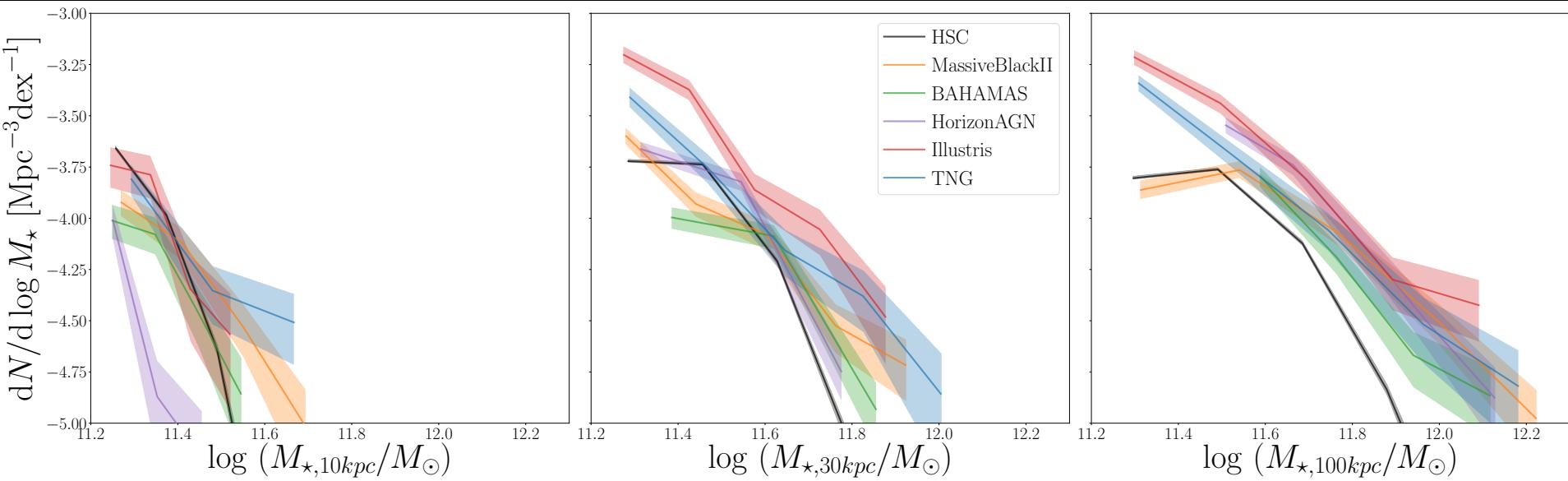
$M_{\star}^{1d, 100}$ vs. M_{halo}



Matched by M_{halo}

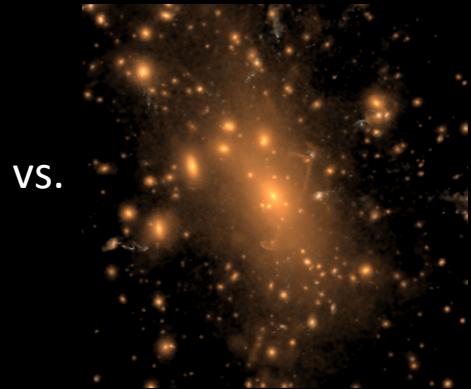
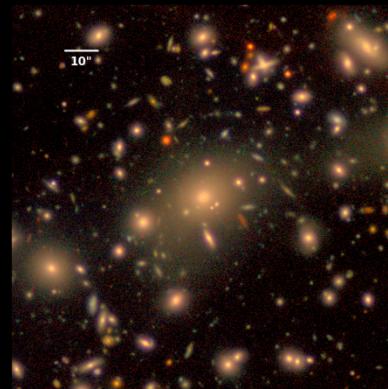


Stellar Mass Functions



Main Takeaways:

- HSC provides beautiful data to help with the calibration of hydro simulations



- Getting X-ray masses for this same set of galaxies will help calibrate the simulations further
 - AGN feedback
 - baryonic effects



xmm-newton

