Stellar Profiles of Massive Galaxies:

Hyper Suprime-Cam Survey

vs.

Hydrodynamic Simulations
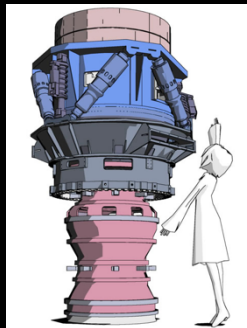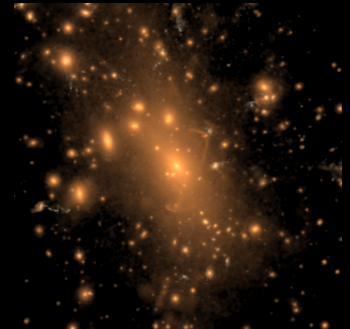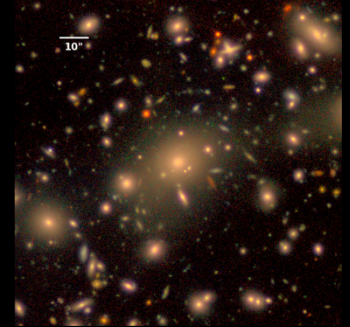
Felipe Ardila[1]

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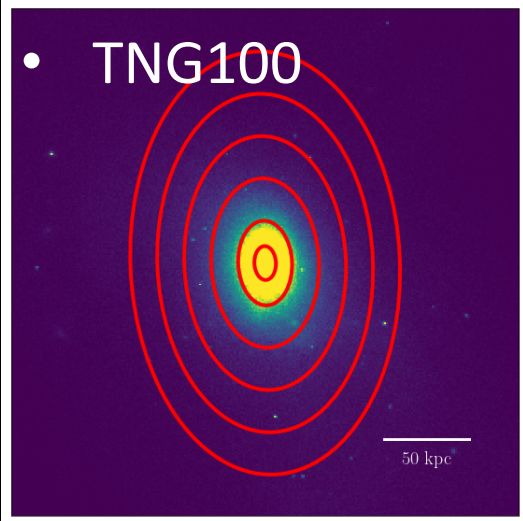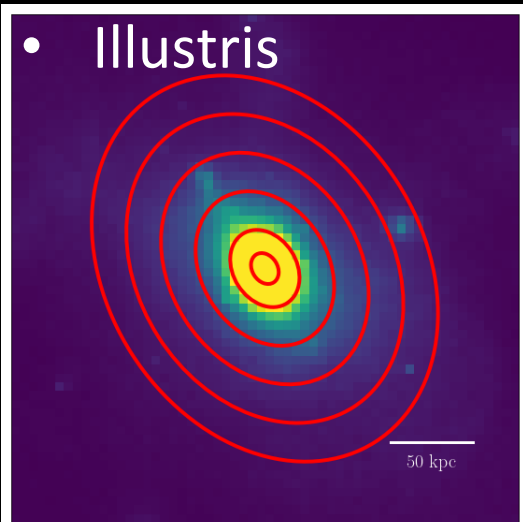
[1] UC Santa Cruz, [2] CfA, [3] MPIA

Observations

- HSC
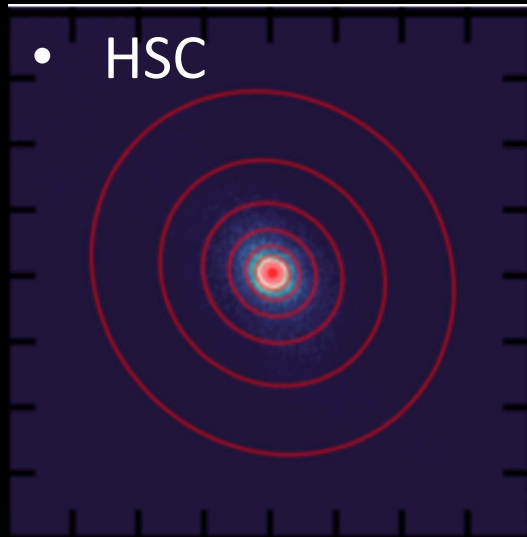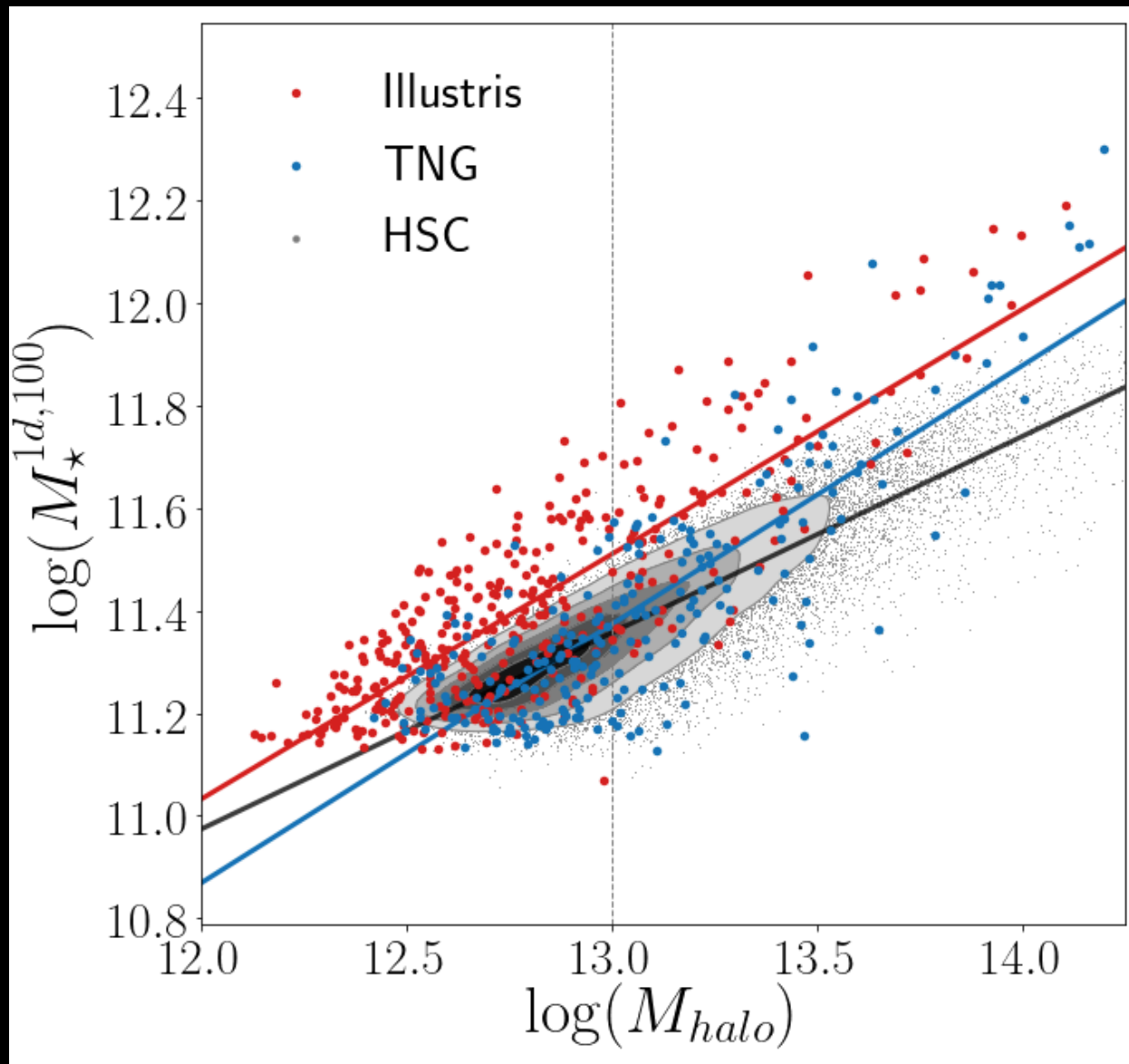

- Consistent methodology between observations and simulations (Huang et al. 2018)

- Weak lensing data

Hydrodynamic Simulations
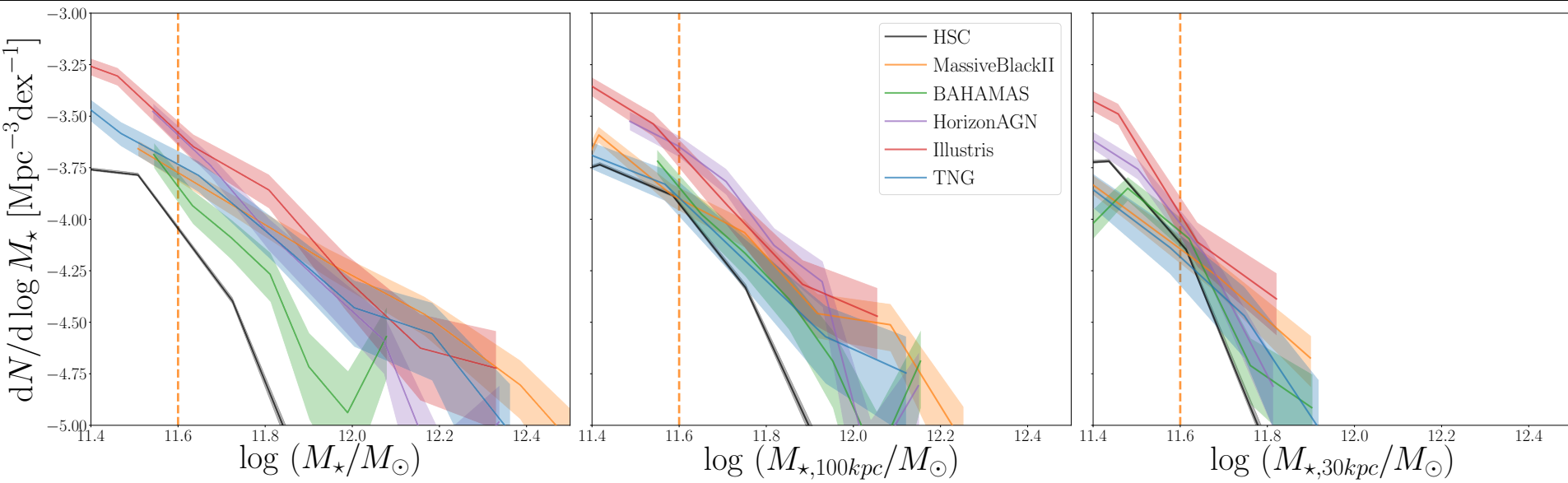
- Illustris

50 kpc

- TNG100

50 kpc

M$_\star^{\text{1d, 100}}$ vs. M$_{\text{halo}}$

Matched by M$_{halo}$
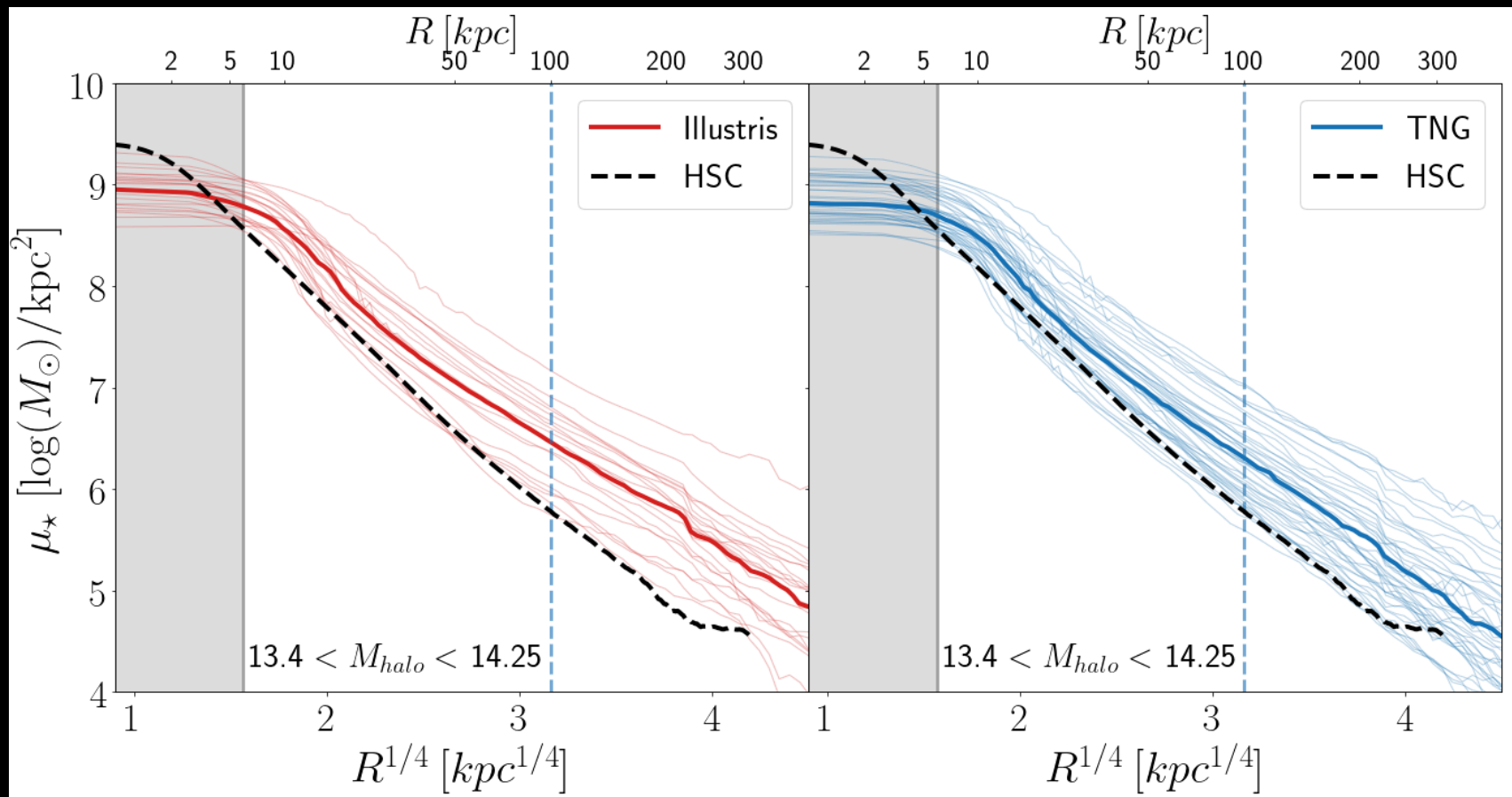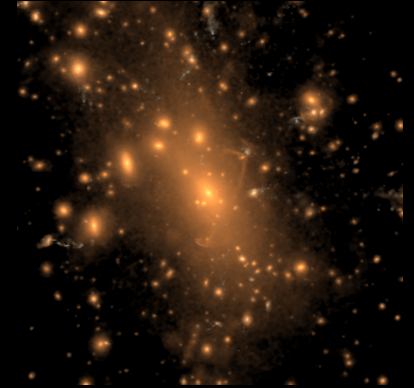
Stellar Mass Functions

Main Takeaways:

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

vs.

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

xmm-newton