

Satellite Quenching Near Isolated MW-Sized Galaxies: Observations

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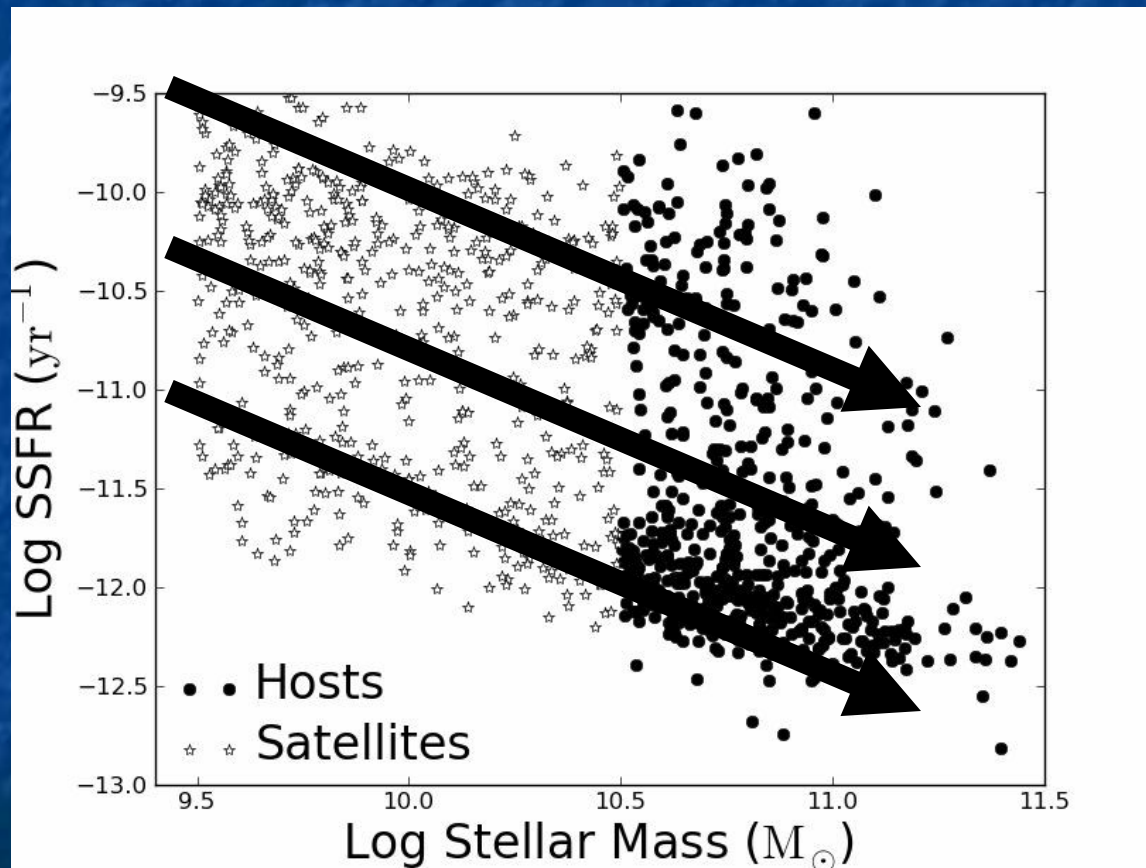
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Building our pairs catalogue

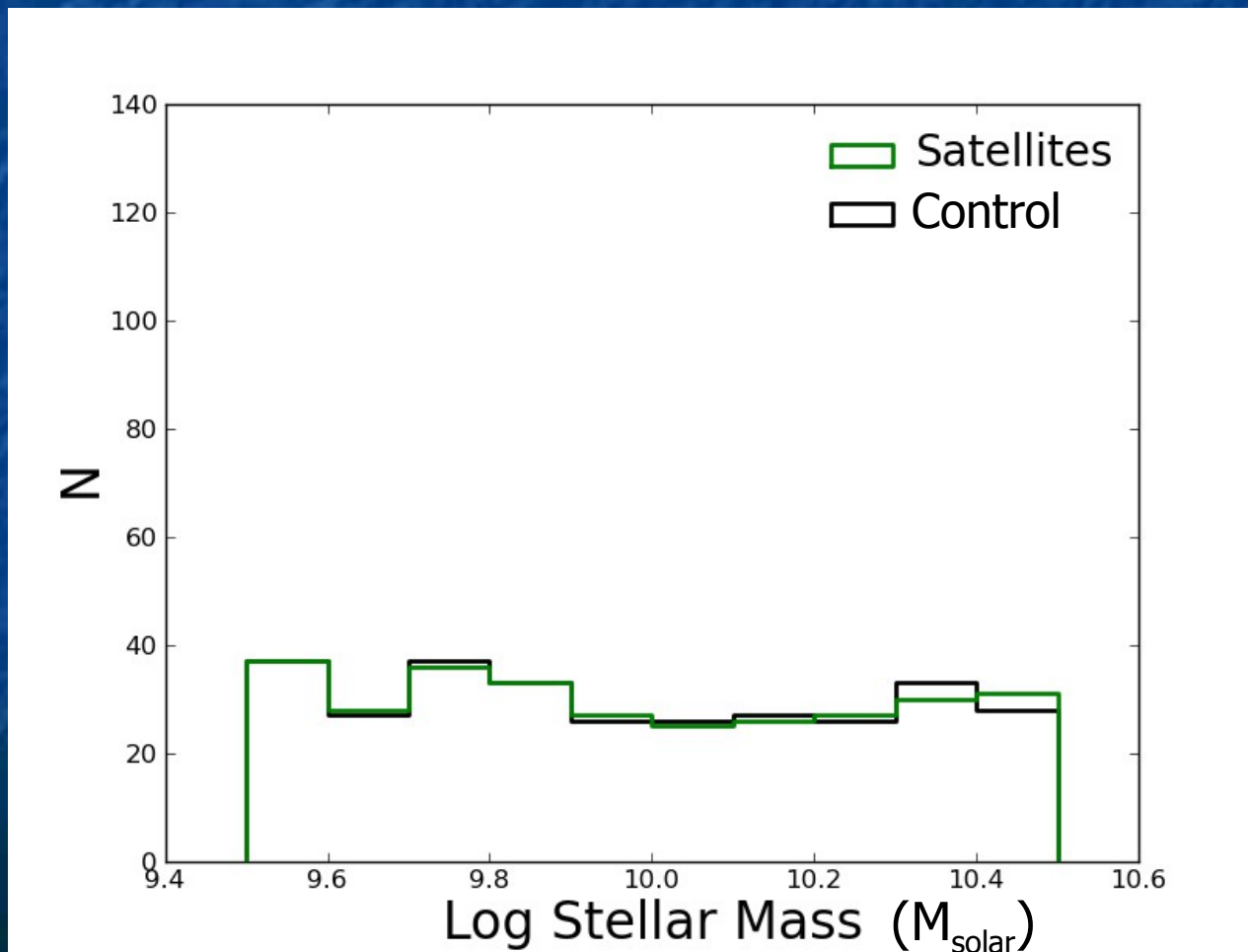
- Investigate satellite quenching around $\sim L^*$ galaxies
- Use this as an indirect probe of the CGM of isolated galaxies, and/or quenching mechanisms
- From the MPA-JHU catalogue (Brinchmann+, 2004) of SDSS DR7, out to $z = 0.032$
 - Find isolated MW-sized, single satellite systems, $N = 580$
 - Find isolated field dwarfs, $N = 864$
- Cut on host or satellite properties to look for trends

Building our pairs catalogue

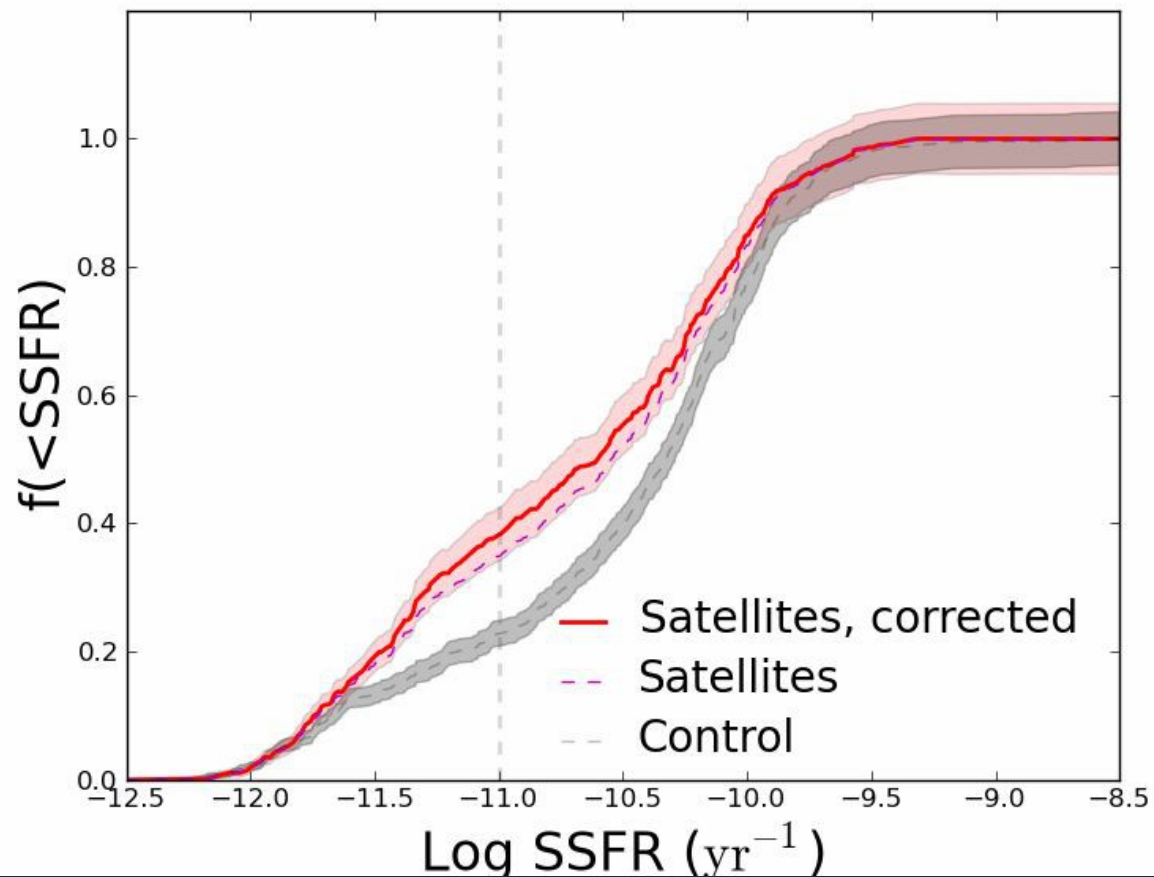


Control Sample Selection

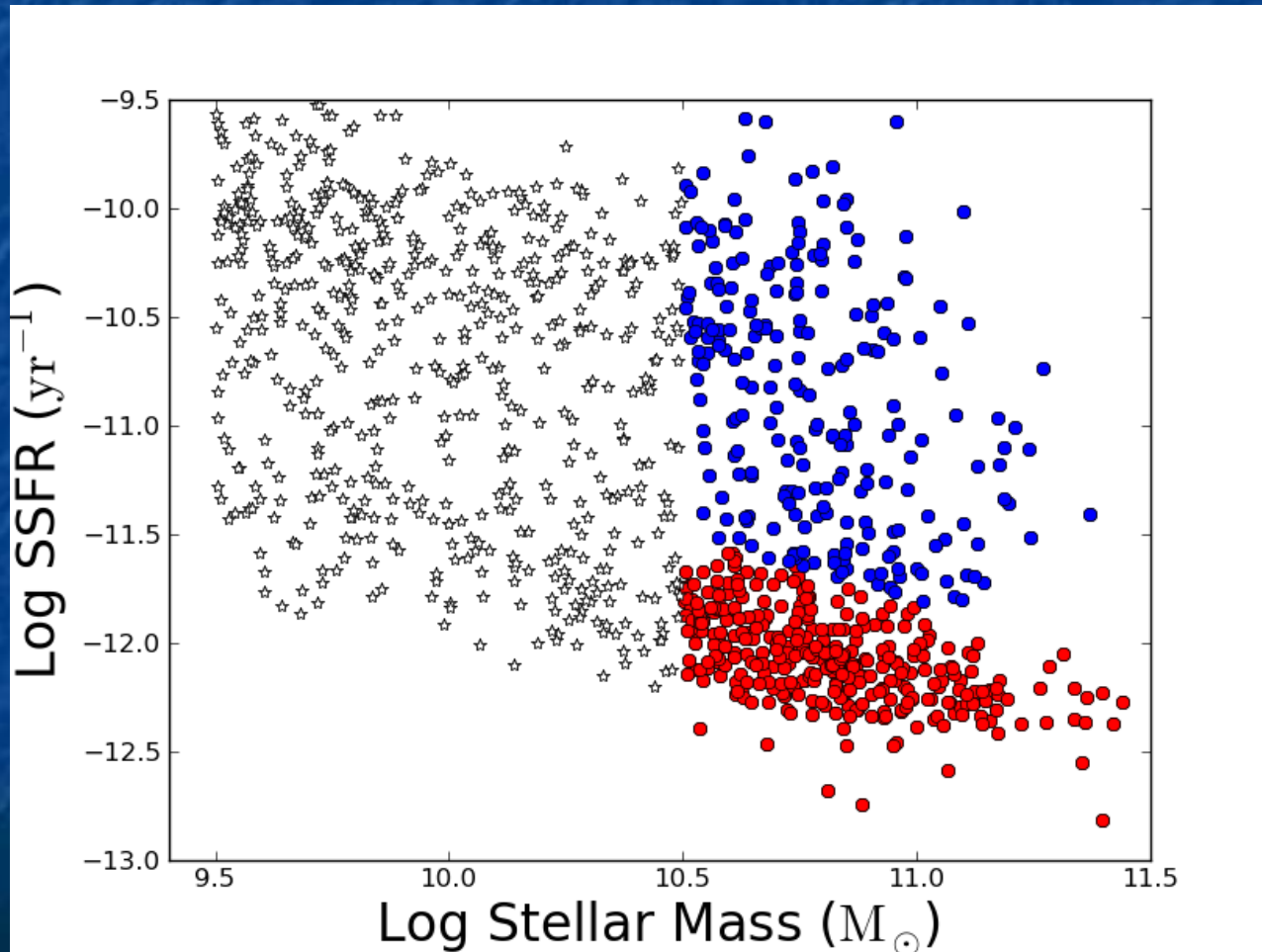
- Account for stellar mass effects – “mass matching”



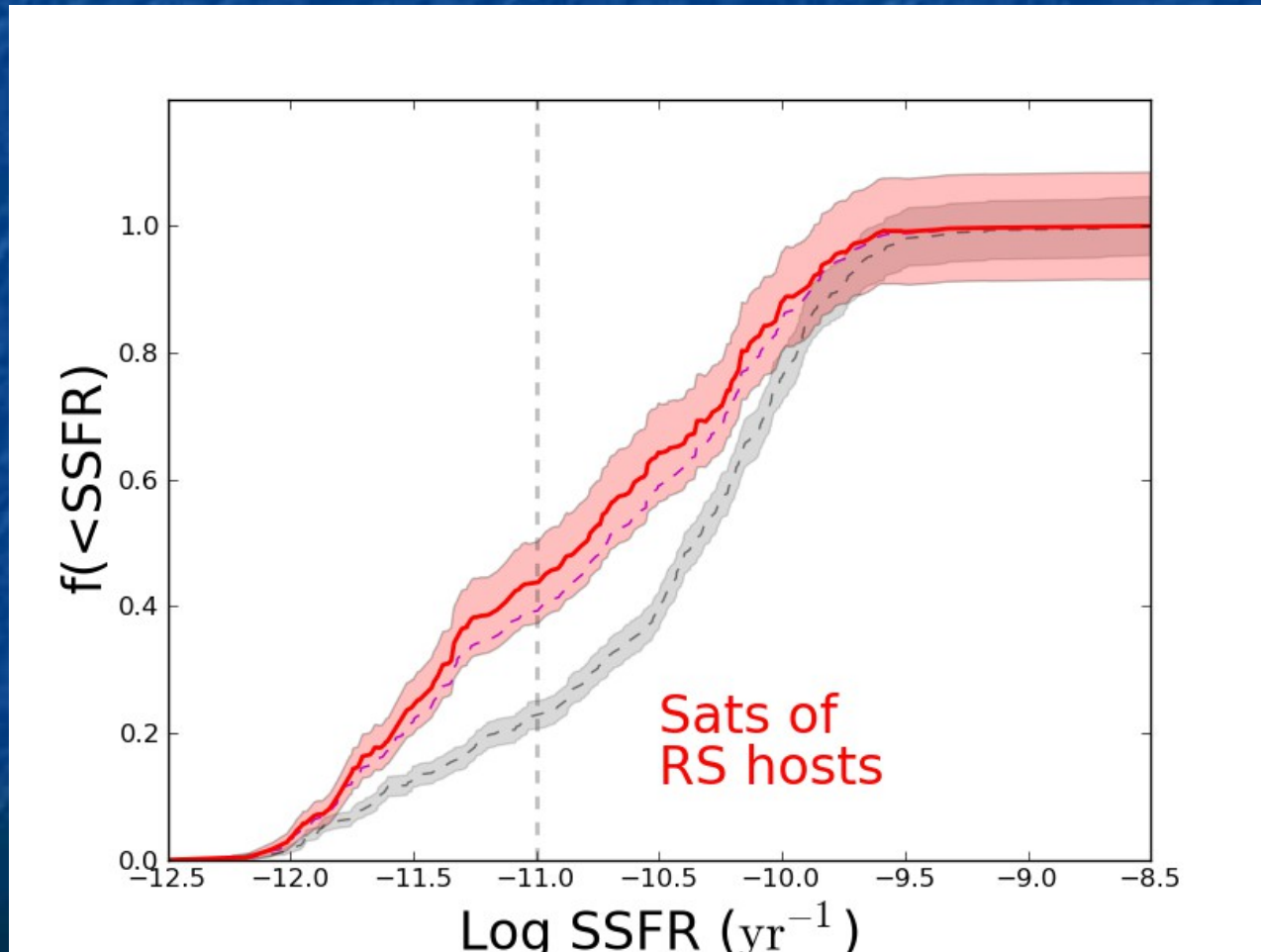
SSFR Distributions



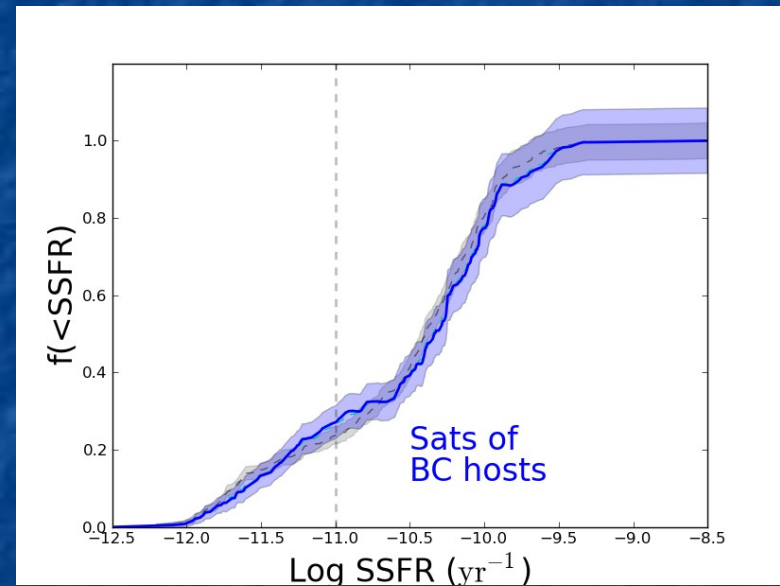
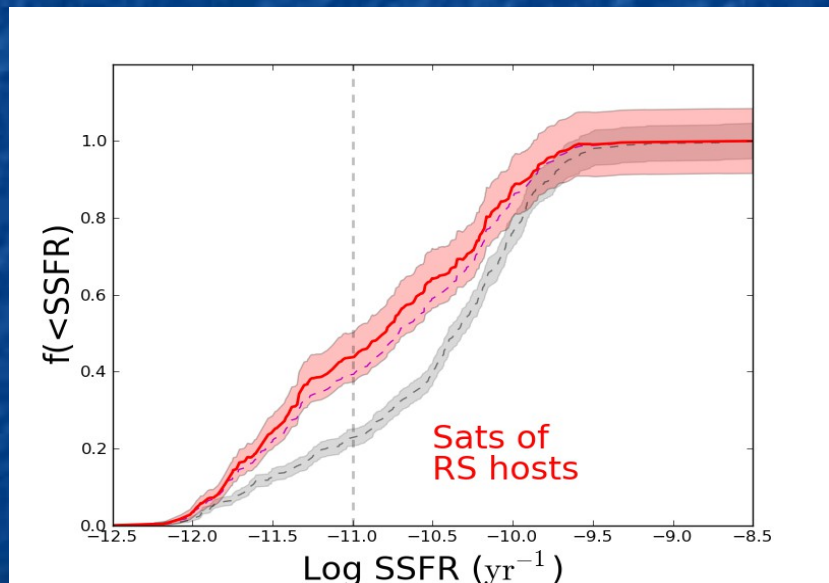
Trends with Host SSFR



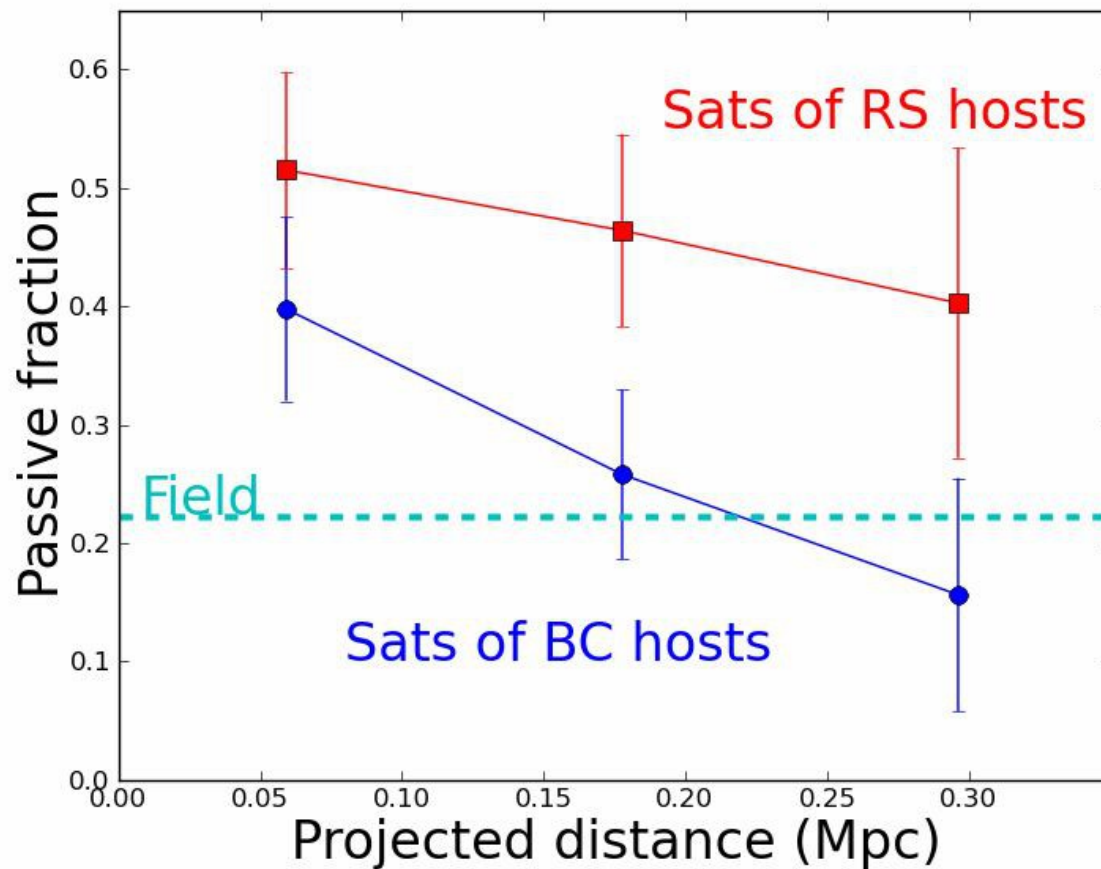
Trends with Host SSFR



Trends with Host SSFR



Radial Trends



Conclusions

Coral Wheeler:

- Simulations are crucial to correcting SDSS galaxy catalogs for projection effects
 - Optimizing isolation criteria forces a trade-off between purity and sample size
- Hosts with exactly one LMC-like satellite are almost always \sim MW mass

John Phillips:

- Quenching around L^* hosts appears to occur predominantly around red sequence hosts
- Star-forming hosts appear to have satellite populations that look very similar to the field
- Is what is quenching the host also quenching the satellite? Possibly a hot halo?