

Environmental Impacts on Galaxies

- **Project:** Studies of galaxies and AGN in and around galaxy clusters
 - Comprehensive study of the galaxy transition from field to cluster as a function of redshift out to $z \sim 1.5$
 - Study of (high frequency) radio AGN (important as source of feedback into ICM, impacting the matter power spectrum, and as source of contamination/incompleteness in SZE based cluster surveys)
- **LSST data:** wide survey starting Y1, photo-z's to help in galaxy selection
 - photometry for SED fitting (stellar mass, stellar population ages, star formation rates)
 - shear catalogs for halo mass calibration and radial mass distribution
 - could benefit from galaxy merger morphology tests
- **Other data:**
 - Clean cluster samples with robust masses
 - X-ray selected from eROSITA, SZE selected from SPT (but not for high frequency radio AGN study)
 - Radio continuum (and HI?) survey constraints on AGN/star formation (MeerKAT, ASKAP)
 - NIR data (VISTA or Euclid), Optical spectroscopy from 4MOST (?)