

The Evolution of Galaxy Sizes and Stellar Populations in Dense Cluster Environments

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- RXJ0848.6/4453/Lynx W ($z=1.27$) + 3 massive clusters $z=0.5-0.9$: High S/N spectroscopy, HST/ACS imaging
- **Size and velocity dispersion evolution: None in cores of rich clusters from $z=1.27$ to 0**
- Fundamental Plane: (1) steeper at high redshift (2) For $z \sim 0.9$ clusters $z_{\text{form}} = 1.24 \pm 0.1$ and 1.95 ± 0.25 for low and high mass galaxies, respectively; (3) For RXJ0848.6+4453 $z_{\text{form}} \approx 1.95$ at $10^{11} M_{\odot}$
- **RXJ0848.6+4453: large fraction of bulge-dominated emission line galaxies on the red sequence and throughout the cluster, strong H ζ absorption => Cluster-wide star formation episode 1-2 Gyr prior to epoch of cluster redshift + star formation not yet quenched**

