



# PHYSICS AND ASTRONOMY SEMINAR

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### “Galaxy Evolution in the Densest Environments - from $z=1.27$ to the Present”

#### Abstract

In the dense environments of rich clusters at low redshift the massive galaxies contain the oldest stellar populations of the epoch. While this is also reflected at higher redshift, recent results show that the period  $z=1-2$  spans the epoch during which major changes in cluster galaxy properties took place (size evolution, mergers, triggered and quenched star formation etc.), resulting in the most massive passively evolving galaxies being in place by  $z\sim 1$ . Understanding this evolution in detail is the focus of our project studying galaxies in clusters up to redshift two based on high S/N ground-based spectroscopy and HST imaging. This talk covers our most recent results for Lynx W ( $z=1.27$ ), as well as our published results on three rich galaxy clusters at intermediate redshift, MS0451.6-0305 ( $z=0.54$ ), RXJ0152.7-1357 ( $z=0.83$ ), and RXJ1226.9+3332 ( $z=0.89$ ).

Tuesday, December 17, 2013

10:00 a.m.

Elliott Building

Room 160