

Astrophysics Seminar

Monday, November 27, 2017

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Is Hierarchical Merging Broken?

I will describe a pair of sharp puzzles suggesting a possible mismatch between our theory of galaxy evolution and recent observations. First, current models predict that the $z \sim 4-8$ universe should be a time in which the most massive galaxies are transitioning from their initial halo assembly to the later baryonic evolution seen in star-forming galaxies and quasars. Instead, massive galaxies appear to exist impossibly early, before their halos should even have been able to assemble. Second, there is increasing observational evidence that history of many galaxies may not be driven by environment but rather by cosmic factors. I will then discuss whether theory and observation are truly inconsistent or whether analytical techniques might be responsible for the current tension.

3:30pm in CAS 502. Refreshments served at 3:15pm in CAS 500.

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Next Week
Mark Reid
CfA