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Constraining the Satellite Quenching Timescale at $z < 1.5^1$ MARIA WIMBERLY, Cal State Univ- Long Beach, MICHAEL COOPER, University of California, Irvine — Despite remarkable success at modeling the evolution of massive galaxies over cosmic time, modern hydrodynamic and semi-analytic models of galaxy formation generally fail to reproduce the properties of low-mass galaxies. This shortcoming in our theoretical picture is largely driven by an inability to understand the physics of satellite (or "environmental") quenching. Using abundance matching prescriptions to populate large dissipationless N-body simulations, including the Bolshoi Simulation, we study the dependence of satellite properties on cluster-centric distance within massive host halos at z < 1.5, focusing on the potential physical mechanisms that may be a play in suppressing star formation in the satellite population. Our results illustrate the potential power of ongoing cluster surveys, such as the multi-year GOGREEN Survey at the Gemini Observatories, to constrain the quenching timescale over more than half of cosmic time.

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