

Abstract Submitted  
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**Evolution of dwarf galaxies simulated in the cosmological LCDM scenario**<sup>1</sup> ALEJANDRO GONZALEZ, Instituto de Astronomia, Universidad Nacional Autonoma de Mexico, PEDRO COLIN, CRyA, UNAM, VLADIMIR AVILA-REESE, Instituto de Astronomia, UNAM, ALDO RODRIGUEZ-PUEBLA, Center for Astronomy and Astrophysics, Shanghai Jiaotong University, OCTAVIO VALENZUELA, Instituto de Astronomia, UNAM — We present results from numerical simulations of low-mass galaxies with the aim to explore the way their stellar masses are assembled. We analyze how the mass assembly histories of the parent halo determine the growth of their host galaxy and its implications on the current paradigm of formation and evolution of low-mass structures in the LCDM scenario. We have found that low-mass galaxies simulated in this scenario assemble their stellar masses following roughly the dark matter halo assembly, which seems to be in tension with the downsizing trend suggested by current observational inferences. We show that there is no more room to increase the strength of feedback from astrophysical processes in order to deviate strongly the stellar mass assembly from the dark halo one, as has been recently invoked to solve some of the potential issues faced by CDM-based simulations of dwarf galaxies.

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