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An Exploration of Cosmological Models which ease the Hubble Constant Tension[1] CLARE BACAK, Ursuline Academy of Dallas, JACOB MOLDENHAUER, University of Dallas — The universe is expanding, but the two methods of measuring the rate of this expansion, or Hubble Constant H_0, are in contention with one another. Local Cepheid variables and the cosmic microwave background (CMB) power spectrum, produce expansion rates in different ways. The unresolved tension could be an indication there may be another model of physics. We use the Monte Carlo Markov Chain program CosmoMC to test the following models:ωCDM model allows the density of dark energy to vary between -1 and -3; nCDM allows the flavor of neutrinos to vary from 2 to 7; MPC is a modified gravitational model, and we use LCDM as control. Finally, we compare our tests to others found in the literature and comment on future tests.

[1]Donald A. Cowan Physics Institute

Jacob Moldenhauer
University of Dallas

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