

Abstract Submitted  
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**Constraining modified gravity parameters for testing General Relativity** WILLIAM O'TOOLE, University of Dallas — We test several of the parameters of Einsteins theory of General Relativity for consistency with cosmological observations. We use data from PLANCK 2015 for cosmic microwave background radiation, CFHTLenS data for weak lensing, SDSS LRG surveys for the Integrated Sachs Wolfe-galaxy cross correlation, baryon acoustic oscillations, compilations of supernovae data, the WiggleZ matter power spectrum, the Hubble Parameter data and Big Bang nucleosynthesis priors. For testing General Relativity with cosmological data, we use cosmoMC, Markov Chain Monte Carlo code for constraining cosmological parameters. Specifically, we use a modified version integrated with the ISiTGR modules which parameterize the equations of motion for General Relativity. We present two dimensional contour graphs and tables of constraints on the General relativity parameters. Our preliminary results suggest tension between the theoretical General Relativity values and our observed values.

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