

Growth of structure using cross-correlation of CMB lensing and cosmic shear

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Weak lensing of cosmological sources is an important tool for studying the distribution of total matter in the universe. Cross-correlating weak lensing of the Cosmic Microwave Background (CMB) with weak lensing of galaxies ("cosmic shear") allows a way to place robust constraints on the amplitude of matter perturbations in the universe while minimizing the impact of certain systematic effects that affect individual surveys. I will discuss the work being done with Atacama Cosmology Telescope (ACT) CMB lensing and Dark Energy Survey (DES) cosmic shear cross-correlation. I will present results from the analysis of ACT DR4 CMB lensing and DES Y3 cosmic shear and discuss some aspects of modeling this observable.

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