PROCEEDINGS OF SCIENCE

The Signature of Low Redshift Large-Scale Structure in the Cosmic Microwave Background

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As microwave background photons propagate from the surface of last scatter to our telescopes, they are affected by four distinct processes in the low redshift universe: gravitational lensing, the thermal Sunyaev-Zeldovich (tSZ) effect, the kinematic Sunyaev Zeldovich (kSZ) effect and the intervening Sachs Wolfe effect (ISW). This talk will focus on the kSZ and ISW effect. I will discuss the cross-correlations between the large-scale distribution of galaxies and these two effects and show how current and future measurements can be used to probe the growth rate of structure and gravitational physics on large-scales.

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