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(zoom) Leveraging cross correlations to detect new physics

Thursday, 23 February 2023 14:50 (5 minutes)

Weak lensing science will enter into its prime as a cosmological probe over the coming decade, but we will not be able to fully exploit weak lensing measurements without supplemental cross-correlation measurements between weak lensing, spectroscopic galaxy surveys and the CMB. I will discuss ways that overlap between upcoming surveys such as Rubin, CMB S4 and Stage V spectroscopy can serve to mitigate dominant weak lensing systematics, highlighting needs for better simulations and forward models of cross-correlation measurements. These cross-correlations strengthen claimed detections of new physics, and allow for a richer measurement of the redshift and scale dependence of potential deviations from vanilla LCDM.

Primary author: Dr DEROSE, Joseph (LBNL)Presenters: NIKOLA, Andrina; Dr DEROSE, Joseph (LBNL)Session Classification: Open Session for Remarks and Discussions