

Abstract Submitted
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Exploring the z-dependence of the two-point angular correlation function in galaxy clustering ALYSSA ENDRES, MATTHEW BELLIS, Siena College, DEBBIE BARD, Stanford University — The two-point angular correlation function (2ACF) is used to quantify the scales of clustering of galaxies. The 2ACF changes as we look further back in time (higher redshift z) and the clustering evolves. We calculate the exact Landy-Szalay estimator for the 2ACF using GPUs (Graphics Processing Units) and employ novel visualizations to observe the evolution of this function with increasing redshift. We use data from the MICE Grand Challenge dataset, a 70-billion particle n-body simulation that is publicly available, and compare to data from the Sloan Digital Sky Survey. The current status of this project will be presented.

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