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## The lensing imprint of cosmic voids on the Cosmic Microwave Background

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Cosmic voids gravitationally lens the cosmic microwave background (CMB) radiation, resulting in a distinct imprint on degree scales. We aimed to probe the consistency of simulated  $\Lambda$ CDM estimates and observed imprints of voids identified in the first year data set of the Dark Energy Survey (DES Y1) by cross correlating with CMB. In particular, we intended to explore other aspects of the previously reported excess integrated Sachs-Wolfe (ISW) signal associated with cosmic voids in DES Y1 as lensing is sourced by the gravitational potential, whereas ISW depends on its time derivative. We used a simulated CMB lensing convergence map to find the optimal strategy to extract the lensing imprints given different void types and galaxy tracer density. We then stacked the Planck lensing convergence map on locations of voids identified in DES Y1 data and found a negative signal associated with DES voids that is consistent with simulations. In this presentation, I will discuss the most important aspects of our measurements and provide some prospects for the constraining power of future DES data.

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