

# The 2nd International Symposium on Cosmology and Ali CMB Polarization Telescope

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## The power of CMB-lensing: AliCPT X DESI and more...

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The polarization map of AliCPT can be combined together with the Planck temperature map to reconstruct the CMB lensing map. The benefit is the quality of AliCPT polarization. The reconstructed CMB lensing map can be apply to either auto-correlation or cross-correlation with other LSS surveys (galaxy survey or shear survey).

We introduce the current status of CMB lensing cross-correlations, and the gain with AliCPT X DESI as well as other surveys. We present the forecast of AliCPT X DESI, as well as some preliminary results on pipeline development, with data from Planck X DESI legacy surveys. We discuss the impact from different systematics and how to improve the status.

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