

Abstract Submitted  
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**Addressing the Systematics of the Dark Energy Spectroscopic Instrument with Fiber Positioner Dithering** TOLGA YAPICI, Univ of Rochester, DESI COLLABORATION — The Dark Energy Spectroscopic Instrument (DESI) is a ground-based dark energy experiment which will measure the effect of the dark energy on the expansion of the universe with a wide-area galaxy and quasar redshift survey. Among the systematic uncertainties which affect the spectroscopic survey are the source spatial profile, the atmospheric point spread function (PSF), and the telescope PSF, all of which depend on wavelength. Additional instrumental uncertainties include imperfections in the mirror surface and pointing offsets in the spectroscopic fibers. We developed a dithering algorithm to map these effects during the commissioning period of the instrument. We present the algorithm as well as its application with Monte Carlo simulations.

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