



Vera C. Rubin Observatory
Rubin Observatory Operations

CCD Height Effects on Rubin PSFs

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Abstract

Modeling the point-spread function (PSF) precisely is essential for many— if not all— science cases with the Rubin Observatory. In this work, we inspect a PSF residual pattern present in both Rubin’s ComCam and LSSTCam observations. We show that it is likely due to effects from CCD non-flatness, and elaborate on the mechanism by which height offsets could influence the PSF. Finally, we demonstrate that incorporating height information into PSF modeling greatly reduces the observed residual.

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A Acknowledgements

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B References

C Acronyms

Acronym	Description
AST	NSF Division of Astronomical Sciences
AURA	Association of Universities for Research in Astronomy
CCD	Charge-Coupled Device
DE-AC02	Department of Energy contract number prefix
LSST-DA	LSST Discovery Alliance
LSSTCam	LSST Science Camera
PSF	Point Spread Function
RTN	Rubin Technical Note
SLAC	SLAC National Accelerator Laboratory