

The Vera C. Rubin Observatory Data Preview 1

(THE VERA C. RUBIN OBSERVATORY)

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ABSTRACT

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Keywords: Rubin Observatory – LSST

1. INTRODUCTION

In this paper, we present Rubin Data Preview 1.

This is the Rubin Observatory overview paper: [Ivezić et al. \(2019\)](#).

It will include a glossary of terms such as [Telescope Mount Assembly \(TMA\)](#) , [Differential Chromatic Refraction \(DCR\)](#).

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Facility: Rubin Observatory, Rubin Hybrid US Data Access Center

Software: Rubin Data Butler ([Jenness et al. 2022](#)), LSST Science Pipelines ([Bosch et al. 2018, 2019](#)),

APPENDIX

Glossary

DCR: Differential Chromatic Refraction. 1

Differential Chromatic Refraction: The refraction of incident light by Earth's atmosphere causes the apparent position of objects to be shifted, and the size of this shift depends on both the wavelength of the source and its airmass at the time of observation. DCR corrections are done as a part of DIA. 1

TMA: Telescope Mount Assembly. 1

REFERENCES

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|---|---|
| <p>Bosch, J., Armstrong, R., Bickerton, S.,
et al. 2018, PASJ, 70, S5,
doi: 10.1093/pasj/psx080</p> <p>Bosch, J., AlSayyad, Y., Armstrong, R.,
et al. 2019, in Astronomical Society of
the Pacific Conference Series, Vol. 523,
Astronomical Data Analysis Software
and Systems XXVII, ed. P. J. Teuben,
M. W. Pound, B. A. Thomas, & E. M.
Warner, 521,
doi: 10.48550/arXiv.1812.03248</p> | <p>Ivezić, Ž., Kahn, S. M., Tyson, J. A.,
et al. 2019, ApJ, 873, 111,
doi: 10.3847/1538-4357/ab042c</p> <p>Jenness, T., Bosch, J. F., Salnikov, A.,
et al. 2022, in Society of Photo-Optical
Instrumentation Engineers (SPIE)
Conference Series, Vol. 12189, Software
and Cyberinfrastructure for Astronomy
VII, 1218911, doi: 10.1117/12.2629569</p> |
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