Weak Lensing for Precision Cosmology

Mohamed Shaaban

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1 Notes

2 General Introduction

Layman friendly descirption of cosmology + weak lensing and its purpose.

3 Cosmological Observables

Discussion about cosmology in general and observable in the framework [4].

4 Gravitational Lensing

Discussion about lensing as a whole then specifics [2] [3] [1]

References

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[2] Rachel Mandelbaum. Weak Lensing for Precision Cosmology. *Annual Review of Astronomy and Astrophysics*, 56:393–433, Sep 2018.

[3] Richard Massey, Henk Hoekstra, Thomas Kitching, Jason Rhodes, Mark Cropper, Jérôme Amiaux, David Harvey, Yannick Mellier, Massimo Meneghetti, Lance Miller, Stéphane Paulin-Henriksson, Sand rine Pires, Roberto Scaramella, and Tim Schrabback. Origins of weak lensing systematics, and requirements on future instrumentation (or knowledge of instrumentation). *mnras*, 429:661–678, Feb 2013.

[4] David H. Weinberg, Michael J. Mortonson, Daniel J. Eisenstein, Christopher Hirata, Adam G. Riess, and Eduardo Rozo. Observational probes of cosmic acceleration. *physrep*, 530:87–255, Sep 2013.