

Cosmic tomography with weak gravitational lensing

Li, S.S.

Citation

Li, S. S. (2023, October 25). *Cosmic tomography with weak gravitational lensing*. Retrieved from https://hdl.handle.net/1887/3645974

Version:	Publisher's Version
License:	Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden
Downloaded from:	https://hdl.handle.net/1887/3645974

Note: To cite this publication please use the final published version (if applicable).

Stellingen

behorende bij het proefschrift

Cosmic tomography with weak gravitational lensing

- 1. The amplitude parameter in the prevailing intrinsic alignment model is notably degenerate with redshift uncertainties. (Chapter 2)
- 2. Using multi-band image simulations for joint shear and redshift calibration is both possible and crucial for upcoming weak lensing surveys. (Chapter 3)
- 3. Merely improving shear measurement and calibration is insufficient to solve the S_8 tension between cosmic shear results and the *Planck* CMB constraints. (Chapter 4)
- 4. Ambiguities in modelling halo central profiles can affect halo masses derived from a weak lensing analysis. (Chapter 5)
- 5. No matter how sophisticated, simulations can never fully replicate real data, highlighting the value in reducing reliance on their realism.
- 6. Given the statistical nature of cosmology, outliers are inevitable.
- 7. Sharing your code publicly not only promotes reproducibility but also encourages more polished coding practices.
- 8. Advocating changes, regardless of scale, often meets with skepticism or opposition.
- 9. The GALSIM package, although primarily designed for image simulations, is also suited for cover design.
- 10. In the realm of human experience, time never reverses.
- 11. If you are granted twelve propositions, consider using them all, but reserving one for the future is also wise.

Shun-Sheng Li Leiden, 25 October 2023