

# Shun-Sheng Li

Postdoctoral researcher

<https://lshuns.github.io/>

Leiden Observatory  
2333 CA Leiden  
the Netherlands  
[ssli@strw.leidenuniv.nl](mailto:ssli@strw.leidenuniv.nl)

## RESEARCH INTERESTS

---

Gravitational lensing measurements and applications; Dark matter properties and connection to galaxy formation; Cosmological models and dark energy constraints; Gravitational waves for cosmological study

## RESEARCH EXPERIENCE

---

Postdoctoral researcher <b>Leiden Observatory</b> , Leiden, the Netherlands	2023 – present
Research assistant <b>Leiden Observatory</b> , Leiden, the Netherlands	2019 – 2023
Research assistant <b>National Astronomical Observatory of China</b> , Beijing, China	2017 – 2019

## EDUCATION

---

PhD with thesis <i>Cosmic tomography with weak gravitational lensing</i> <b>Leiden University</b> , Leiden, the Netherlands	2019 – 2023
MSc in Astrophysics <b>University of Chinese Academy of Sciences</b> , Beijing, China	2016 – 2019
BSc in Astronomy <b>Nanjing University</b> , Nanjing, China	2012 – 2016

## PROFESSIONAL EXPERIENCE

---

### COLLABORATION

- [Kilo-Degree Survey](#) 2019–present  
*KiDS-Legacy calibration team, galaxies and halos working group*
- [Euclid Consortium](#) 2020–present  
*Flagship 2.0 validation team, weak lensing science working group*

### PUBLIC CODE DEVELOPMENT

- [📦 MultiBand\\_ImSim](#)  
*A multi-band image simulation pipeline for generating multi-band images and creating joint redshift-shear mock catalogues.*

## TEACHING EXPERIENCE

---

### TEACHING ASSISTANT

- Large-Scale Structure and Galaxy Formation 2022  
*Master's course, Leiden University*
- Gravitational Lensing 2020  
*Master's course, Leiden University*

### (CO-)SUPERVISION

- Margherita Grespan (2020), Shiyang Zhang (2022)  
*MSc students, Leiden University*

## SCHOLARSHIPS AND AWARDS

---

- China National Scholarship 2018
- China People's Scholarship 2014, 2015

## PUBLICATION STATISTICS

---

10 total (5 first author and 2 second author).

Total citations: 344, h-index: 8, according to [adsabs](#) recorded on Feb 23, 2024.

## INVITED TALKS

---

A complete list of presentations is available at <https://lshuns.github.io/talks/>

6. LMU Munich seminar Munich, 2023  
*KiDS-1000: Cosmology with improved cosmic shear measurements*
5. Innsbruck seminar Innsbruck, 2023  
*Unifying shear and redshift calibration with the SKiLLS multi-band image simulations*
4. KIPAC tea talk Stanford (virtual), 2023  
*Lessons for LSST Weak Lensing from the Kilo Degree Survey*
3. Intriguing inconsistencies in the growth of structure over cosmic time Sesto, 2022  
*Multi-band image simulations to unite the shear and redshift calibrations*
2. Leiden-GRAPPA GW cosmology meeting Leiden, 2019  
*Gravitational Lensing of Gravitational Waves*
1. NAOC galaxy formation lunch talk Beijing, 2018  
*Gravitational Lensing of Gravitational Waves*

# PUBLICATION LIST

---

Summary: 10 total, 5 first author and 2 second author.

Total citations: 344, h-index: 8, according to [adsabs](#) recorded on Feb 23, 2024.

## FIRST-AUTHOR PUBLICATIONS

5. KiDS-1000: Cosmology with improved cosmic shear measurements  
S.-S. Li, H. Hoekstra, K. Kuijken, et al., 2023, A&A, 679, A133 ([adsabs](#)).
4. KiDS-Legacy calibration: Unifying shear and redshift calibration with the SKiLLS multi-band image simulations  
S.-S. Li, K. Kuijken, H. Hoekstra, et al., 2022, A&A, 670, A100 ([adsabs](#)).
3. KiDS+VIKING-450: An internal-consistency test for cosmic shear tomography with a colour-based split of source galaxies  
S.-S. Li, K. Kuijken, H. Hoekstra, et al., 2021, A&A, 646, A175 ([adsabs](#)).
2. OGLE-2017-BLG-1186: First Application of Asteroseismology and Gaussian Processes to Microlensing  
S.-S. Li, W. Zang, A. Udalski, et al., 2019, MNRAS, 488, 3308 ([adsabs](#)).
1. Gravitational Lensing of Gravitational Waves: A Statistical Perspective  
S.-S. Li, S. Mao, Y. Zhao, et al., 2018, MNRAS, 476, 2220 ([adsabs](#)).

## SECOND-AUTHOR PUBLICATIONS

2. Strong lensing selection effects  
A. Sonnenfeld, S.-S. Li, G. Despali, et al., 2023, A&A, 678, A4 ([adsabs](#)).
1. Detecting Lensing-Induced Diffraction in Astrophysical Gravitational Waves  
L. Dai, S.-S. Li, B. Zackay, et al., 2018, Phys. Rev. D, 98, 104029 ([adsabs](#)).

## OTHER CO-AUTHORED PUBLICATIONS

3. DES Y3 + KiDS-1000: Consistent cosmology combining cosmic shear surveys  
DES and KiDS Collaboration, et al. (incl. S.-S. Li), 2023, OJAp, 6, 36 ([adsabs](#)).
2. Spitzer + VLTI-GRAVITY Measure the Lens Mass of a Nearby Microlensing Event  
W. Zang, et al. (incl. S.-S. Li), 2020, ApJ, 897, 180 ([adsabs](#)).
1. Spitzer Microlensing Parallax Reveals Two Isolated Stars in the Galactic Bulge  
W. Zang, et al. (incl. S.-S. Li), 2020, ApJ, 891, 3 ([adsabs](#)).

## REFEREES

---

**Prof. Koen Kuijken**, PhD supervisor  
**Leiden University**, Leiden, the Netherlands

- Email: [kuijken@strw.leidenuniv.nl](mailto:kuijken@strw.leidenuniv.nl)
- Website: <https://home.strw.leidenuniv.nl/~kuijken/>

**Prof. Henk Hoekstra**, PhD supervisor  
**Leiden University**, Leiden, the Netherlands

- Email: [hoekstra@strw.leidenuniv.nl](mailto:hoekstra@strw.leidenuniv.nl)
- Website: <https://home.strw.leidenuniv.nl/~hoekstra/>

**Prof. Shude Mao**, Master's supervisor  
**Tsinghua University**, Beijing, China

- Email: [smao@tsinghua.edu.cn](mailto:smao@tsinghua.edu.cn)
- Website: <http://i.astro.tsinghua.edu.cn/~smao/>