Shun-Sheng Li

PhD candidate

https://lshuns.github.io/

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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

Research Assistant 2019 – present

Leiden Observatory, Leiden, the Netherlands

Research Assistant 2017 - 2019

National Astronomical Observatory of China, Beijing, China

EDUCATION

PhD in Astrophysics 2019 – 2023 (expected)

Leiden University, Leiden, the Netherlands

- Thesis: Cosmic tomography with weak gravitational lensing

- Advisors: Prof. Koen Kuijken & Prof. Henk Hoekstra

MSc in Astrophysics 2016 - 2019

University of Chinese Academy of Sciences, Beijing, China

- Thesis: Gravitational lensing of gravitational waves

- Advisor: Prof. Shude Mao

BSc in Astronomy 2012 - 2016

Nanjing University, Nanjing, China

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 Master's course, Leiden University 2022

• Gravitational Lensing

Master's course, Leiden University

2020

(Co-)supervision

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

SCHOLARSHIPS AND AWARDS

• National Scholarship for Graduate Students of China

2018

• People's Scholarship

2014, 2015

Publication Statistics

10 total (9 published and 1 submitted), 5 first author and 2 second author. Total citations: 262, h-index: 7, according to adsabs recorded on July 24, 2023.

Presentations

19 total (5 invited). A complete list is available at https://lshuns.github.io/talks/

INVITED TALKS

- 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

 Multi-band image simulations to unite the shear and redshift calibrations

 Sesto, 2022
- 2. Leiden-GRAPPA GW cosmology meeting Leiden, 2019
 Gravitational Lensing of Gravitational Waves
- 1. NAOC galaxy formation lunch talk
 Gravitational Lensing of Gravitational Waves

 Beijing, 2018

REFEREES

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

- Email: 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
- Website: https://home.strw.leidenuniv.nl/~hoekstra/

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

- Email: smao@tsinghua.edu.cn
- Website: http://i.astro.tsinghua.edu.cn/~smao/