

## Anowar J. Shajib

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### CONTACT INFORMATION

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### RESEARCH INTERESTS

Gravitational Lensing, Observational Cosmology

### EDUCATION

#### University of California, Los Angeles, USA

Ph.D. Candidate, Astronomy, March 2017 (expected graduation date: June 2020)

- Dissertation Topic: “Shining light on the dark energy with time-delay cosmography”
- Advisor: Prof. Tommaso Treu

M.S., Astronomy, June 2016

- Advisor: Prof. Edward L. Wright

#### The University of Tokyo, Japan

B.S., Physics, March 2014

### HONORS AND AWARDS

Graduate Student Travel Grant, *UCLA*, 2017, \$2000

**Astronomy Division Fellowship**, University of California, Los Angeles, 2014-2015

**MEXT<sup>1</sup> Scholarship**, 2009-2014

### ACADEMIC EXPERIENCE

#### University of California, Los Angeles, USA

*Graduate Student*

**October 2014 - present**

Includes current Ph.D. research, Ph.D. and Masters level coursework and research.

*Guest Lecturer*

- Physics 127 - General Relativity (Spring 2015)
- Astro 81 - Astronomy I: Stars and Nebulae (Winter 2016)

*Teaching Assistant*

- Astronomy 3 - Nature of Universe (Fall 2014)
- Physics 1C - Electrodynamics, Optics and Special Relativity (Winter 2015)
- Physics 127 - General Relativity (Spring 2015)
- Physics 6C - Physics for Life Sciences Majors: Light, Fluids, Thermodynamics, Modern Physics (Fall 2015)
- Astronomy 81 - Astrophysics I: Stars and Nebulae (Winter 2016)
- Astronomy 140 - Stellar Systems and Cosmology (Spring 2016)
- Physics 12 - Physics of Sustainable Energy (Winter 2017)

### PUBLICATIONS

#### First Author Publications

1. Shajib, A. J. and Wright, E. L. Measurement of the integrated Sachs-Wolfe effect using the AllWISE data release. [ApJ, 827:116, 2016.](#)

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<sup>1</sup>Ministry of Education, Culture, Sports, Science and Technology, Government of Japan

2. Shajib, A. J., Treu, T., and Agnello, A. Improving time-delay cosmography with spatially resolved kinematics. [MNRAS, 473, 210-226, 2018.](#)
3. Shajib, A. J., et al. Is every strong lens model unhappy in its own way? Uniform modelling of a sample of ten quadruply imaged quasars. In preparation.

### Contributing Author Publications

1. Williams, P. R., et al. Discovery of three strongly lensed quasars in the Sloan Digital Sky Survey. [MNRAS: Letters, sly043, 2018.](#)
2. Ding, X., Treu, T., **Shajib, A. J.**, et al. Time Delay Lens Modeling Challenge: I. Experimental Design. [arxiv:1801.01506, 2018.](#)
3. Chen, G. C.-F., et al. Constraining the microlensing effect on time delays with new time-delay prediction model in  $H_0$  measurements. [arxiv:1804.09390, 2018.](#)
4. Molina, E., et al. More massive galaxies are more massive: luminous and dark matter in small-separation quasar lenses. In preparation.

### CONFERENCE PRESENTATIONS

1. Shajib, A. J., Treu, T., and Agnello, A. 2017. Improving time-delay cosmography with spatially resolved kinematics. Strong Lensing by Galaxies and Clusters, Aosta, Italy, 2017.
2. Shajib, A. J., Treu, T., and Agnello, A. 2018. Improving time-delay cosmography with spatially resolved kinematics in the ELT era. Shedding Light on the Dark Universe with Extremely Large Telescopes, UCLA, USA, 2018.

### APPROVED OBSERVING PROPOSALS (CoI)

Keck U053(2017A), U032(2017B), U011(2018A). PI: Treu. Dark energy with gravitational time-delay: OSIRIS spectroscopy of lensing galaxies.

### OBSERVING EXPERIENCE

OSIRIS, Keck I, 7.5 nights,  
NIRC2, Keck II, 3 nights.

### DATA ANALYSIS EXPERIENCE

W. M. Keck Observatory (OSIRIS, NIRC2), *Hubble Space Telescope*, *Wide-field Infrared Survey Explorer*, *Wilkinson Microwave Anisotropy Probe*, *Planck*, Sloan Digital Sky Survey.

### OUTREACH

**Public talk**, Title: The Story of You. UCLA Planetarium, 2014.  
**Star show**, UCLA Planetarium, 2014, 2015.  
**Astronomy Live!**, visited K-12 schools to perform various demos as part of the UCLA Astronomy outreach program.  
**Exploring Your Universe**, performed various demos in UCLA's annual science festival, 2014-17.

### COMPUTER SKILLS

Programming Languages: Python, C, C++, PHP, SQL, JavaScript.  
Astronomy software: IRAF, PyRAF, SExtractor, DS9, Lenstronomy.

### POSITIONS OF RESPONSIBILITY

**Captain and Coach**, The University of Tokyo Cricket Club, 2012-13  
**College prefect**, Sylhet Cadet College, 2006-07