Nan Li

Curriculum Vitae

Postdoc at The University of Chicago &
Argonne National Laboratory
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Education

2009–2013 **Astrophysics, PhD., May 2013**, *National Astronomical Observatories*, Chinese Academy of Sciences, Beijing, China.
Thesis: "Gravitational lensing and Cosmology"
Advisors: Prof. Liang Gao and Prof. Shude Mao

2006–2009 **Astrophysics, M.A., June 2009**, *National Astronomical Observatories*, Chinese Academyof Sciences, Beijing, China.
Thesis: "Cusp-core problem and strong gravitational lensing"
Advisor: Prof. Da-Ming Chen.

2001–2006 **Engineering Mechanics, B.S. June 2006**, *Beijing University of Aeronautics and Astronautics*, Beijing, China.
Thesis: "Structure stability of the connections of step objects"
Advisor: Yunfeng Xing

Research Experience

2013–present **The University of Chicago and Argonne National Lab**, Chicago IL, USA.
working with Prof. Mike Gladders, Prof. Salman Habib and Prof. Katrin Heitmann on simulations of gravitational lensing.

2009–2013 **National Astronomical Observatories, Chinese Academy of Sciences**, Beijing, China.
worked with Prof. Liang Gao and Prof. Shude Mao on gravitational lensing and structures of galaxies and galaxy clusters.

2006–2009 **National Astronomical Observatories, Chinese Academy of Sciences**, Beijing, China.
Worked with Prof. Da-Ming Chen on strong gravitational lensing probability in the Universe.

2005–2006 **Beijing University of Aeronautics and Astronautics**, Beijing, China.
Worked with Prof. Yunfeng Xing on structure stability of the connections of step object.

Research Interests

- Simulations of Gravitational lensing.
- Gravitational lensing modeling.
- Automatically lens finding.
- Applications of machine learning in Cosmology.

Conferences and Workshops

2015 **Mocking the Universe at STScI**, *Barltimore*, MD, USA.
Poster: Simulations of strong lensing in galaxy clusters.

2015 **Santa Fe Cosmology Workshops for 2015**, *Santa Fe*, NM, USA.
Talk: Applications of the simulations of gravitational lensing.

2015 **SPT Cluster Collaboration Meeting**, *Chicago*, IL, USA.
Talk: Simulations of Strong Lensing for SPT-Cluster-Catalog.

2015 **LSST DESC Collaboration Meeting at SLAC**, *Menlo Park*, CA, USA.
Talk: Mocking Realistic Strongly lensed Arcs.

2014 **DESC Collaboration Meeting at U. Penn**, *Philadelphia*, PA, USA.

2014 **Santa Fe Cosmology Workshops for 2014**, *Santa Fe*, NM, USA.

2014 **KICP Postdoc Symposium for 2014 Spring**, *Chicago*, IL, USA.
Talk: Simulations of Strong Gravitational Lensing.

2013 **Santa Fe Cosmology Workshops for 2013**, *Santa Fe*, NM, USA.

2012 **Santa Fe Cosmology Workshops for 2012**, *Santa Fe*, NM, USA.
Talk: Measuring Dark matter halo density slope with flexion.

2011 **The 9th Sino-German Workshop on Galaxy Formation and Cosmology**, *HangZou*, China.
Talk: Effects of supermassive binary black holes on gravitational lenses.

2011 **Workshop on weak and strong lensing**, *Beijing*, China.

2010 **Summer school: galaxy formation and galaxy evolution**, *Beijing*, China.

Computer Skills

Advanced	Python, Cython, C/C++, OpenMP, OpenCL
Intermediate	MPI, MPI4py, Bash shell, IDL, Fortran, Matlab
Basic	Swift, Cuda
Skillful	Gnuplot, Latex, Latex-beamer, Linux, Mac OSX, Git

Languages

Mothertongue	**Chinese**	
Intermediate	**English**	*Conversationally fluent*
Basic	**Karea**	*Basic words and phrases only*

Publications

- **Cusp-Core probelm and strong gravitational lensing**.
  Li, Nan; Da-Ming Chen, 2009, RAA, Vol. 9, No. 11, 1173–1184
- **Effects of supermassive binary blackholes on gravitational lenses**.
  Li, Nan; Mao, Shude; Gao, Liang; Loeb, Abraham and di Stefano, R., 2012, MNRAS, Vol. 419, 2424–2432
- **Measuring the mass to light ratio of galaxies with weak lensing**.
  Li, Nan; Li, Ran; Er, Xinzhong, 2013, RAA, Vol. 13, No. 9, 1041–1051
- **Simulations of Strong Gravitational Lensing**.
  Li, Nan et al in preparation
- **Arc statistics for SPT Cluster Catalog**.
  Li, Nan et al in preparation
- **Lensing Effects on Gini Coefficient of source galaxies** .
  Florian, Michael et al in preparation.

References

Dr. Michael Gladders
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The University of Chicago

Dr. Salman Habib
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