

XIN WANG

Personal Information

CURRENT STATUS: Postdoctoral Scholar at Caltech/IPAC
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Education and Employment

AUG. 2019– | Infrared Processing and Analysis Center, Caltech | **Postdoctoral Scholar**
PRESENT | Expertise: Space-based Slitless Spectroscopy and Near-UV Direct Imaging
SEPT. 2015– | Department of Physics and Astronomy, University of California, Los Angeles
 | **Ph.D. in Astronomy & Astrophysics**
JUN. 2019 | Field of Interest: Spatially Resolved Spectroscopy, Chemical Evolution of Galaxies,
 | Extragalactic Nebular Emission, Strong Gravitational Lensing.
SEPT. 2013– | Physics Department, University of California, Santa Barbara | **M.A. in Physics**
JUN. 2015 | Graduate Course Cumulative GPA: 3.96
SEPT. 2010– | School of Astronomy and Space Sciences, Nanjing University | **M.Sc. in Astrophysics**
JUN. 2013 | Field of Interest: Precision Cosmology, Galaxy Clusters, Gamma-ray Bursts.
SEPT. 2006– | Department of Astronomy, Nanjing University | **B.Sc. in Astronomy**
JUN. 2010 | Weighted Average Score: 84.64/100 (overall), 87.68/100 (major); Ranking: 2nd/26

Awards and Honors

MAR. 2020 | Kavli Visiting Fellow, Peking University
JUN. 2019 | UCLA Physics and Astronomy Commencement Speaker
JAN. 2019 | Chinese Government Award for Outstanding Graduate Students Abroad (\$6k)
DEC. 2018 | UCLA Doctoral Student Travel Grant (\$1k)
JUL. 2018 | UCLA Richardson Travel Fund (\$1.7k)
JUN. 2018 | UCLA Dissertation Year Fellowship (\$47k: stipend+tuition)
MAY 2018 | Rudnick-Abelmann Fellowship, UCLA (\$2k)
APR. 2018 | IAU grant for participating the XXXth General Assembly (€0.75k)
APR. 2018 | AAS International Travel Grant (\$2k)
APR. 2015 | AAS International Travel Grant (\$1k)
JUN. 2014 | 1st Prize for Excellent M.Sc. Thesis amongst all Universities and Colleges in Jiangsu Province
SEPT. 2013 | Broida Fellowship, UCSB (\$3k)
DEC. 2012 | National Scholarship for Graduate Students (CNY30k)
AUG. 2010 | 1st Prize for Excellent B.Sc. Thesis amongst all Universities and Colleges in Jiangsu Province
OCT. 2009 | Scholarship of National Astronomical Observatories, Chinese Academy of Sciences

Talks and Colloquia

DEC. 2020 | **Invited Seminar**, @ Department of Physics and Astronomy, University of Missouri
DEC. 2019 | **Invited talk**, @ Purple Mountain Observatory, Nanjing
DEC. 2019 | **Invited talk**, @ 2019 Nanjing University Youth Forum, Nanjing
DEC. 2019 | **Invited talk**, @ Shanghai Astronomical Observatory
DEC. 2019 | **Invited talk**, @ Shanghai Jiao Tong University, Shanghai
AUG. 2019 | **Lunch talk**, @ [The Kavli Institute for Astronomy and Astrophysics at Peking University](#)
AUG. 2019 | **Invited talk**, @ National Astronomical Observatories of China, Beijing
AUG. 2019 | **Invited talk**, @ Key Laboratory of Space Utilization, CAS
JUN. 2019 | **Invited talk**, @ [CLEAR collaboration meeting](#), STScI
FEB. 2019 | **Contributed talk**, @ [Extremely Big Eyes on the Early Universe](#), UCLA

JAN. 2019 | **Dissertation Talk**, @ [AAS 223](#), Seattle
 DEC. 2018 | **Astronomy Seminar** @ Columbia
 DEC. 2018 | **Galread Extragalactic Discussion Group** @ Princeton
 DEC. 2018 | **Galaxy Journal Club** @ STScI
 DEC. 2018 | **Galaxies & Cosmology Seminar** @ CfA Harvard & Smithsonian
 NOV. 2018 | **IMPS Seminar** @ UC Santa Cruz
 NOV. 2018 | **Lunch talk** @ Carnegie Observatories, Pasadena, CA
 OCT. 2018 | **Astronomy Tea Talk** @ Caltech, Pasadena, CA
 AUG. 2018 | **Contributed talk**, @ [Focus Meeting 7 at the XXXth IAU General Assembly](#), Vienna, Austria
 JUL. 2018 | **Invited talk**, @ University of Science and Technology of China, Hefei
 JUN. 2018 | **Contributed talk with conference fellowship**, @ [KIAA Forum on Gas in Galaxies](#), Beijing
 MAY 2018 | **Invited talk**, @ 2018 Nanjing University Youth Forum, Nanjing
 FEB. 2018 | **Colloquium talk**, @ IPAC, Caltech, Pasadena, CA
 JAN. 2018 | **Lunch talk**, @ Carnegie Observatories, Pasadena, CA
 SEPT. 2017 | **Invited talk**, @ Tsinghua University, Beijing
 SEPT. 2017 | **Invited talk**, @ Nanjing University, Nanjing
 SEPT. 2017 | **Invited talk**, @ Shanghai Jiao Tong University, Shanghai
 JUN. 2017 | **Contributed talk**, @ [Special Session 11 at European Week of Astronomy and Space Science](#), Prague, Czech Republic
 JAN. 2017 | **Colloquium talk**, @ Steward Observatory, University of Arizona, Tucson, AZ
 AUG. 2016 | **Colloquium talk**, @ Department of Astronomy, University of Michigan, Ann Arbor, MI
 JUL. 2016 | **Invited talk**, @ Tsinghua University, Beijing
 JUN. 2016 | **Invited talk**, @ Nanjing University, Nanjing
 JUN. 2016 | **Invited talk**, @ Purple Mountain Observatory, Nanjing
 JUN. 2016 | **Invited talk**, @ National Astronomical Observatories of China, Beijing
 AUG. 2015 | **Contributed talk**, @ [Focus Meeting 22 at the XXIXth IAU General Assembly](#), Honolulu, HI
 NOV. 2012 | **Contributed talk**, @ [Tsinghua Transient Workshop 2012](#), Tsinghua University, Beijing
 JUN. 2010 | **Contributed talk**, @ [A mini-workshop on “Gamma-ray Sky from Fermi: Neutron Stars and their Environment”](#), Hong Kong, China
 APR. 2009 | **Contributed talk**, @ [Frontiers of Space Astrophysics: Neutron Stars & Gamma Ray Bursts — Recent Developments & Future Directions](#), Cairo & Alexandria, Egypt

Approved Proposals

- 1 HST-16276, **PI Wang**, [45 Primary Spacecraft Orbits: WFC3 Spectroscopy of the Most Massive Galaxy Protoclusters at Cosmic Noon](#)
- 2 JWST-ERS-1324, **PI Treu**: [Through the Looking GLASS: A JWST Exploration of Galaxy Formation and Evolution from Cosmic Dawn to Present Day](#)
- 3 HST-14922, **PI Kelly**: Probing the Nature of Dark Matter with Individual Stars Highly Magnified by a Galaxy Cluster
- 4 HST-14280, **PI Bradac**: Breaking Cosmic Dawn: Observing the $z > 7$ Universe Through Cosmic Telescopes
- 5 VLT-0101.B-0418(A), **PI Sanchez-Janssen**: Chemodynamics of lensed dwarf galaxies at $1 \lesssim z \lesssim 2$
- 6 Keck, **PI Jones**: Dissecting Galaxy Formation and Testing Feedback Models on 100 pc Scales: An OSIRIS Survey of Lensed Galaxies at $z \simeq 2$

Observing Experience

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| <ul style="list-style-type: none"> • Keck OSIRIS, 16 nights • Keck MOSFIRE, 1 night • Lick Observatory Shane telescope, 1 night • Palomar Observatory P200 telescope, 2 nights | <ul style="list-style-type: none"> • Keck DEIMOS, 3 nights • Keck ESI, 1 night • Steward Observatory Bok telescope, 6 nights |
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Professional Service

- Referee for *Astrophysical Journal*, *Astrophysical Journal Supplement Series*
- External reviewer for Chinese Telescope Access Program Time Allocation Committee
- Selected participant in the inaugural [JWST Master Class](#)
- Organizer of the [KIAA JWST Proposal Planning Workshop](#) and the [UCLA JWST Proposal Planning Workshop](#)
- Organizer of Treu Group Meetings, @ UCSB & UCLA
- Organizer of Graduate Journal Club in School of Astronomy and Space Sciences, NJU

Teaching Experience

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| MAR.–JUN. 2014 | Teaching assistant of <i>Physics 3: Basic Physics</i> , University of California, Santa Barbara |
| SEPT.–DEC. 2013 | Teaching assistant of <i>Physics 6 Lab</i> , University of California, Santa Barbara |
| SEPT.–DEC. 2010 | Teaching assistant of <i>Theoretical Astrophysics</i> (upper division undergraduate course), NJU |

Working Experience and Outreach Activities

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| 2015–2017 | Demonstrator of Astronomy experiments to local K12 schools in Los Angeles |
| 2015–2017 | Volunteer in the annual EXPLORING YOUR UNIVERSE! events, UCLA |
| 2010–2012 | President of Graduate Student Union in School of Astronomy and Space Sciences, NJU |

Publications

1st/2nd Author Papers in Refereed Academic Journals

- 10 **Wang, X.** et al. Measurements of Escaping Lyman Continuum in Galaxy Stacks and Extreme Emission Line Galaxies from UVCANDELS. In prep.
- 9 **Wang, X.** et al. A Census of Sub-kiloparsec Resolution Metallicity Gradients in Star-forming Galaxies at Cosmic Noon from HST Slitless Spectroscopy. 2020, *Astrophys. J.*, in press ([arXiv:1911.09841](#))
- 8 **Wang, X.** et al. Discovery of Strongly inverted metallicity gradients in Dwarf Galaxies at $z \sim 2$. 2019, *Astrophys. J.*, 882, 94 ([arXiv:1808.08800](#))
- 7 **Wang, X.** et al. The Grism Lens-Amplified Survey from Space (GLASS) X. Sub-kiloparsec resolution gas-phase metallicity maps at cosmic noon behind the Hubble Frontier Fields cluster MACS1149.6+2223. 2017, *Astrophys. J.*, 837, 89 ([arXiv:1610.07558](#))
- 6 **Wang, X.** et al. The Grism Lens-Amplified Survey from Space (GLASS) IV. Mass reconstruction of the lensing cluster Abell 2744 from frontier field imaging and GLASS spectroscopy. 2015, *Astrophys. J.*, 811, 29 ([arXiv:1504.02405](#))
- 5 Jones, T., **Wang, X.** et al. The Grism Lens-Amplified Survey from Space (GLASS) II. Gas-Phase Metallicity and Radial Gradients in an Interacting System At $z \sim 2$. 2015, *Astron. J.*, 149, 107 ([arXiv:1410.0967](#))
- 4 **Wang, X.**, Meng, X.-L., & Huang, Y. F., Testing X-ray Measurements of Galaxy Cluster Gas Mass Fraction Using the Cosmic Distance-Duality Relation and Type Ia Supernovae. 2013, *RAA*, 13, 1013 ([arXiv:1305.2077](#))
- 3 **Wang, X.**, Meng, X.-L. et al. Observational Constraints on Cosmic Neutrinos and Dark Energy Revisited. 2012, *J. Cosmol. Astropart. Phys.*, 11, 018 ([arXiv:1210.2136](#))
- 2 **Wang, X.**, Huang, Y. F., & Kong, S. W. Constraint on the Counter-jet Emission in GRB Afterglows from GRB 980703. 2010, *Sci. China-Phys. Mech. Astron.*, 53 (Suppl.1), 259
- 1 **Wang, X.**, Huang, Y. F., & Kong, S. W. On the Afterglow from the Receding Jet of Gamma-Ray Bursts. 2009, *Astron. Astrophys.*, 505, 1213 ([arXiv:0903.3119](#))

Contributing Author Papers in Refereed Academic Journals

- 19 Abramson, L. E., ..., **Wang, X.** et al. The Grism Lens-Amplified Survey from Space (GLASS). XIII. G800L optical spectra from the parallel fields. 2020, *MNRAS*, 493, 952 ([arXiv:1906.00008](#))
- 18 Hirtenstein, J., Jones, T., **Wang, X.** et al. The OSIRIS Lens-Amplified Survey (OLAS) I: Dynamical Effects of Stellar Feedback in Low Mass Galaxies at $z \sim 2$. 2018, *Astrophys. J.*, 880, 54 ([arXiv:1811.11768](#))
- 17 Strait, V., ..., **Wang, X.** et al. Mass and Light of Abell 370: A Strong and Weak Lensing Analysis. 2018, *Astrophys. J.*, 868, 129 ([arXiv:1805.08789](#))
- 16 Quinn, E., ..., **Wang, X.** et al. Mass Modeling of Frontier Fields Cluster MACS J1149.5+2223 Using Strong and Weak Lensing. 2018, *Astrophys. J.*, 859, 1 ([arXiv:1806.00698](#))

- 15 Morishita, T., Abramson, L. E., Treu, T., **Wang, X.** et al. Metal Deficiency in Two Massive Dead Galaxies at $z \sim 2$. 2018, *Astrophys. J. Letters*, 856L, 4 ([arXiv:1803.01852](#))
- 14 Abramson, L. E., ..., **Wang, X.** et al. The Grism Lens-Amplified Survey from Space (GLASS). XII. Spatially Resolved Galaxy Star Formation Histories and True Evolutionary Paths at $z > 1$. 2018, *Astron. J.*, 156, 29 ([arXiv:1710.00843](#))
- 13 Kelly, P. L., ..., **Wang, X.** et al. Extreme magnification of an individual star at redshift 1.5 by a galaxy-cluster lens. 2018, *Nature Astronomy*, 2, 334 ([arXiv:1706.10279](#))
- 12 Williams, P. R., ..., **Wang, X.** Discovery of three strongly lensed quasars in the Sloan Digital Sky Survey. 2018, *MNRAS*, 477L, 70 ([arXiv:1706.01506](#))
- 11 Schmidt, K. B., ..., **Wang, X.** The Grism Lens-Amplified Survey from Space (GLASS). XI. Detection of CIV in Multiple Images of $z = 6.11$ Ly α Emitter Behind RXCJ2248.7-4431. 2017, *Astrophys. J.*, 839, 17 ([arXiv:1702.04731](#))
- 10 Morishita, T., Abramson, L. E., Treu, T., Schmidt, K. B., Vulcani, B., **Wang, X.** Characterizing Intracluster Light in the Hubble Frontier Fields. 2017, *Astrophys. J.*, 846, 139 ([arXiv:1610.08503](#))
- 9 Vulcani, B., ..., **Wang, X.** The Grism lens-amplified survey from space (GLASS). VIII. The influence of the cluster properties on H α emitter galaxies at $0.3 < z < 0.7$. 2017, *Astrophys. J.*, 837, 126 ([arXiv:1610.04615](#))
- 8 Morishita, T., ..., **Wang, X.**, et al. The Grism Lens-Amplified Survey from Space (GLASS). IX. The dual origin of low-mass cluster galaxies as revealed by new structural analyses. 2017, *Astrophys. J.*, 835, 254 ([arXiv:1607.00384](#))
- 7 Huang, K., ..., **Wang, X.** Detection of Lyman-Alpha Emission From a Triple Imaged $z=6.85$ Galaxy Behind MACS J2129.4-0741. 2016, *Astrophys. J. Letters*, 823L, 14 ([arXiv:1605.05771](#))
- 6 Hoag, A., ..., **Wang, X.** et al. The Grism Lens-Amplified Survey from Space (GLASS). VI. Comparing the Mass and Light in MACSJ0416.1-2403 using Frontier Field imaging and GLASS spectroscopy. 2016, *Astrophys. J.*, 831, 182 ([arXiv:1603.00505](#))
- 5 Schmidt, K. B., ..., **Wang, X.** The Grism Lens-Amplified Survey from Space (GLASS). III. A census of Ly α Emission at $z \gtrsim 7$ from HST Spectroscopy. 2016, *Astrophys. J.*, 818, 38 ([arXiv:1511.04205](#))
- 4 Rodney, S., ..., **Wang, X.**, et al. Illuminating a Dark Lens : A Type Ia Supernova Magnified by the Frontier Fields Galaxy Cluster Abell 2744. 2015, *Astrophys. J.*, 811, 70 ([arXiv:1505.06211](#))
- 3 Treu, T., Schmidt, K. B., Brammer, G. B., Vulcani, B., **Wang, X.** et al. The Grism Lens-Amplified Survey from Space (GLASS). I. Survey Overview and First Data Release. 2015, *Astrophys. J.*, 812, 114 ([arXiv:1509.00475](#))
- 2 Schmidt, K. B., Treu, T., Brammer, G. B., Bradac, M., **Wang, X.** et al. Through the Looking GLASS: HST Spectroscopy of Faint Galaxies Lensed by the Frontier Fields Cluster MACSJ0717.5+3745. 2014, *Astrophys. J. Letters*, 782L, 36 ([arXiv:1401.0532](#))
- 1 Meng, X.-L., Zhang, T.-J., Zhan, H., & **Wang, X.** Morphology of Galaxy Clusters: A Cosmological Model-Independent Test of the Cosmic Distance-Duality Relation. 2012, *Astrophys. J.*, 745, 98 ([arXiv:1104.2833](#))