

Ji Wang

CONTACT INFORMATION

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Yale University
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CITIZENSHIP

P.R.China

RESEARCH INTERESTS

Exoplanet detection and characterization using the radial velocity technique and the transit method, high resolution imaging, spectroscopy, and interferometry, planets in multiple stellar systems and planets at wide orbits.

EXPERIENCES

Yale University, New Haven, Connecticut, USA

Postdoctoral Associate, , September 2012

University of Florida, Gainesville, Florida, USA

Ph.D., Astronomy, July 2012

- Thesis Topic: *Toward Massive Detection of Planets Around M-Dwarfs Using the Radial Velocity Technique*
- Adviser: Professor Jian Ge

M.S., Astronomy, May 2008

- Thesis Topic: *High-Contrast Imaging of Exoplanets Around Giant Stars*
- Adviser: Professor Jian Ge

University of Science and Technology of China, Hefei, Anhui, P.R.China

B.S., Astrophysics, July 2006

PROJECTS AS PI

Searching For Planets In Binary Stars (**K2 Cycle 2 GO Program \$30,000**)

Confirming the Planet-Metallicity Correlation For Small Planets (**WIYN HYDRA 2015B**)

No Place to Hide: An Adaptive Optics Search For Stellar Companions Around Kepler Stars with Radial Velocity Measurements (**Keck NIRC2 2015A**)

Direct Imaging of Low-Mass Companions to Evolved Stars (**Palomar-P1640 2015A**)

Adaptive Optics Doppler Experiment (AODE): Searching and Confirming Hot Jupiters in Close Binaries (**Palomar SWIFT 2014B**)

What Causes the Migration of Hot Jupiters? (**Palomar PHARO+EAE 2014B**)

No Place to Hide: An Adaptive Optics Search For Stellar Companions Around Kepler Stars with Radial Velocity Measurements (**Keck NIRC2 2014B**)

What Causes the Migration of Hot Jupiters? (**Gemini-N DSSI 2014B**)

Planets Beyond The Habitable Zone: Connecting Exoplanet Frontiers to Future Missions (**Keck NIRC2 2014A**)

Naboo vs. Tatooine: Distinguishing Planet Occurrence Rate For Single and Multiple Stars (**Palomar PHARO 2014A**)

Searching For Planets Around M Dwarfs with EXPERT (**KPNO 2010B-0534**)

Multi-Band Study of Radial Velocity Induced by Stellar Activity with EXPERT (**KPNO 2011B-0450**)

Wang, J., Debra A. Fischer, Alyssa Picard, Bo Ma, et al., 2015, submitted to ApJ, Planet Hunters. VIII. Characterization of 46 Long-Period Exoplanet Candidates from the Kepler Archival Data

Wang, J., Fischer, Debra A.; Horch, Elliott P.; Xie, Ji-Wei., 2015, ApJ, 806, 248, Influence of Stellar Multiplicity on Planet Formation. III. Adaptive Optics Imaging of Kepler Stars With Gas Giant Planets

Wang, J. & Fischer, D. A. 2015, AJ, 149, 14, Revealing A Universal Planet-Metallicity Correlation For Planets of Different Sizes Around Solar-Type Stars

Wang, J., Fischer, Debra A.; Horch, Elliott P.; Huang, Xu., 2015, ApJ, 799, 229, On the Occurrence Rate of Hot Jupiters in Different Stellar Environments

Wang, J., Fischer, Debra A.; Xie, Ji-Wei; Ciardi, David R., 2014, ApJ, 791, 111, Influence of Stellar Multiplicity On Planet Formation. II. Planets Are Less Common in Multiple Star Systems with Separations Smaller than 1500 AU

Wang, J., Xie, Ji-Wei; Barclay, Thomas; Fischer, Debra A., 2014, ApJ, 783, 4, Influence of Stellar Multiplicity On Planet Formation. I. Evidence of Suppressed Planet Formation Due to Stellar Companions Within 20 AU and Validation of Four Planets From the *Kepler* Multiple Planet Candidates

Schmitt, J. R., **Wang, J.**, Fischer, D. A., et al. 2014, AJ, 148, 28, Planet Hunters VI: The First Kepler Seven Planet Candidate System and 13 Other Planet Candidates from the Kepler Archival Data

Wang, J., et al. 2013, ApJ, 776, 10, Planet Hunters. V. A Confirmed Jupiter-Size Planet in the Habitable Zone and 42 Planet Candidates from the Kepler Archive Data

Wang, J., Ge, J., Wan, X., De Lee, N., & Lee, B. 2012, PASP, 124, 1159, Accurate Group Delay Measurement for Radial Velocity Instruments Using the Dispersed Fixed Delay Interferometer Method. II. Application of Heterodyne Combs Using an External Interferometer Filter

Wang, J., Ge, J., Wan, X., Lee, B., & De Lee, N. 2012, PASP, 124, 598, Accurate Group-Delay Measurement for Radial-Velocity Instruments Using the Dispersed Fixed-Delay Interferometer Method

Wang, J., & Ford, E. B. 2011, MNRAS, 418, 1822, On the eccentricity distribution of short-period single-planet systems

Wang, J., Ge, J., Jiang, P., & Zhao, B. 2011, ApJ, 738, 132, Fundamental Performance of a Dispersed Fixed Delay Interferometer in Searching for Planets around M Dwarfs

Wang, J., & Ge, J. 2011, arXiv:1107.4720, How Close Are We To Detecting Earth-like Planets in the Habitable Zone Using the Radial Velocity Technique?

Wan, X.; **Wang, J.**; Ge, J. Accurate Measurement of Interferometer Group Delay Using Field-compensated Scanning White Light Interferometer. *Applied Optics*. Vol. 49 Issue 29, pp.5645-5653 (2010).

- Wan, X.; **Wang, J.**; Ge, J. Resolving Fringe Ambiguities of a Wide-field Michelson Interferometer Using Visibility Measurements of a Noncollimated Laser Beam. *Applied Optics*. Vol. 48 Issue 26, pp.4909-4916 (2009).
- LaCourse, D. M., et al. 2015, submitted to MNRAS, Kepler Eclipsing Binary Stars. VI. Identification of Eclipsing Binaries in the K2 Campaign 0 Data-set
- Fleming, S. W., et al. 2015, accepted by AJ, The APOGEE Spectroscopic Survey of Kepler Planet Hosts: Feasibility, Efficiency, and First Results
- Bieryla, A., et al. 2015, submitted to AJ, KELT-7b: A hot Jupiter transiting a bright $V=8.54$ rapidly rotating F-star
- Alam, A., et al. 2015, submitted to ApJS, The Eleventh and Twelfth Data Releases of the Sloan Digital Sky Survey: Final Data from SDSS-III
- Ghezzi, L., et al. 2014, AJ, 148, 105, Accurate Atmospheric Parameters at Moderate Resolution Using Spectral Indices: Preliminary Application to the MARVELS Survey
- Jiang, P., et al. 2013, AJ, 146, 65, Very Low Mass Stellar and Substellar Companions to Solar-like Stars from MARVELS. IV. A Candidate Brown Dwarf or Low-mass Stellar Companion to HIP 67526
- Pepper, J., et al. 2013, ApJ, 773, 64, KELT-3b: A Hot Jupiter Transiting a $V = 9.8$ Late-F Star
- De Lee, N., et al. 2013, AJ, 145, 155, Very Low Mass Stellar and Substellar Companions to Solar-like Stars from MARVELS. V. A Low Eccentricity Brown Dwarf from the Driest Part of the Desert, MARVELS-6b
- Wright, J. T., et al. 2013, arXiv:1305.0280, MARVELS-1: A face-on double-lined binary star masquerading as a resonant planetary system; and consideration of rare false positives in radial velocity planet searches
- Ma, B., et al. 2013, AJ, 145, 20, Very-low-mass Stellar and Substellar Companions to Solar-like Stars from Marvels. III. A Short-period Brown Dwarf Candidate around an Active G0IV Subgiant
- Ahn, C. P., et al. 2012, ApJS, 203, 21, The Ninth Data Release of the Sloan Digital Sky Survey: First Spectroscopic Data from the SDSS-III Baryon Oscillation Spectroscopic Survey
- Fleming, S. W., et al. 2012, AJ, 144, 72, Very Low Mass Stellar and Substellar Companions to Solar-like Stars from MARVELS. II. A Short-period Companion Orbiting an F Star with Evidence of a Stellar Tertiary and Significant Mutual Inclination
- Wisniewski, J. P., et al. 2012, AJ, 143, 107, Very Low Mass Stellar and Substellar Companions to Solar-like Stars from MARVELS. I. A Low-mass Ratio Stellar Companion to TYC 4110-01037-1 in a 79 Day Orbit
- Eisenstein, D. J., et al. 2011, AJ, 142, 72, SDSS-III: Massive Spectroscopic Surveys of the Distant Universe, the Milky Way, and Extra-Solar Planetary Systems
- Aihara, H., et al. 2011, ApJS, 193, 29, The Eighth Data Release of the Sloan Digital Sky Survey: First Data from SDSS-III
- Lee, B. L., et al. 2011, ApJ, 728, 32, MARVELS-1b: A Short-period, Brown Dwarf Desert Candidate from the SDSS-III Marvels Planet Search
- Wright, J. T., et al. 2009, ApJ, 699, L97, A Third Giant Planet Orbiting HIP 14810

CONFERENCE
PROCEEDINGS

- Ge, J., et al. 2012, Proc. SPIE, 8446, Design and performance of a new generation, compact, low cost, very high Doppler precision and resolution optical spectrograph
- Ge, J., et al. 2012, Proc. SPIE, 8446, High resolution Florida IR silicon immersion grating spectrometer and an M dwarf planet survey
- Zhao, B., Ge, J., Nguyen, D. C., **Wang, J.**, & Groot, J. 2010, Proc. SPIE, 7735, Design of a near-IR Doppler instrument for planet searches
- Ge, J., et al. 2010, Proc. SPIE, 7735, Design, performance, and early results from extremely high Doppler precision instruments in a global network
- Wang, J.**, Wan, X., & Ge, J. C. 2010, Proc. SPIE, 7734, Development of Monolithic Michelson Interferometer for RV measurement in IR
- Ge, J., et al. 2009, Proc. SPIE, 7440, A new generation multi-object Doppler instrument for the SDSS-III Multi-object APO Radial Velocity Exoplanet Large-area Survey

HONORS AND
AWARDS

- Yale Department Travel Fund Award, Aug, 2014
- Postdoctoral Scholars Travel Fund Award, Feb, 2014
- Graduate Travel Award, Dec, 2011
- Architect for MARVELS in SDSS III, May, 2011
- First Place for Poster Presentation in Probing the Diversity of Brown Dwarfs and Exoplanets Conference in Shanghai, China, Jul, 2008
- Good Student Award, University of Florida Jan, 2007
- Outstanding Student Scholarship, USTC Oct, 2005
- Outstanding Student Scholarship, USTC Oct, 2004
- Outstanding Student Scholarship, USTC Oct, 2003

INVITED TALKS

- "Searching Exoplanets in Habitable Zone Around Low Mass Stars", AAPT Winter Meeting, Jacksonville, FL, Jan, 2011
- "Advancing Our Knowledge of Planets in the Habitable Zone and Beyond", Exoplanet Talk, Princeton University, Nov, 2013
- "Stellar Multiplicity Influence on Planet Formation", seminar talk, Center for Exoplanets and Habitable Worlds, PSU, April 2014
- "Planets in Binary Stars", invited talk, CT Exoplanet Picnic, Wesleyan University, May 2014
- "Advancing Our Knowledge of Planets in the Habitable Zone and Beyond", Colloquium Talk, IPAC, California Institute of Technology, Jul 2014
- "Stellar Influence On Planet Formation", Connecticut Star Party, Ashford CT, Sep 2014
- "Planet Formation In Different Environments", Colloquium Talk, Wesleyan University, Nov 2014
- "Planet Formation Under Different Environments", Colloquium Talk, Wesleyan University, Nov 2014
- "Planet Formation Under Different Environments", Seminar Talk, Tsinghua University, Mar 2014
- "Planet Formation Under Different Environments", Seminar Talk, Yale Center for Astronomy and Astrophysics, Yale University, Mar 2014
- "Planet Formation Under Different Environments", Lunch Talk, The Carnegie Observatories, Mar 2014
- "Planet Formation Under Different Environments", Colloquium Talk, UCLA, Apr 2014

OTHER TALKS

- "Development of A Monolithic Interferometer For Precise Radial Velocity Measurement", Flash Talk, University of Arizona, May, 2008

"Searching For Planets Around M Dwarfs Using the Radial Velocity Technique", AAS 219th Meeting, Austin, TX, Jan, 2012
 "Advancing Our Knowledge of Planets in the Habitable Zone and Beyond", Special Colloquium Talk, University of Florida, Nov, 2013
 "Revealing A Universal Planet-Metallicity Correlation", Oral presentation, AAS 223rd Meeting, National Harbor, Maryland, Jan 2014
 "Advancing Our Knowledge of Planets in the Habitable Zone and Beyond", special seminar, University of Pennsylvania, April 2014
 "Advancing Our Knowledge of Planets in the Habitable Zone and Beyond", Special Seminar Talk, UC Berkeley, Aug 2014
 "Putting An End to Twinkling Litter Stars", Astro on Tap, New Haven CT, Sep 2014
 "Planets in Binary Stars", Keck Science Meeting, California Institute of Technology, Oct 2014
 "Planet Formation Under Different Environments", Lunch Talk, Kavli Institute for Astronomy and Astrophysics, Peking University, Mar 2014
 "Planet Formation Under Different Environments", Lunch Talk, IPAC, Jun 2015

COMMUNITY SERVICES

Reviewer for ApJ, ApJL, AJ, A&A, and Nature
 Reviewer for the NASA Maturation of Instruments for Solar System Exploration (MatisSE) Program
 Reviewer for the Swiss National Science Foundation
 Member of admission committee at Yale University
 Connecticut Star Party, Ashford, CT, Sep, 2014
 Venus Transit Event, Gainesville, FL, Jun 2012
 Wiles Science Symposium, Gainesville, FL, May 2010
 Mercury Transit Event, Gainesville, FL, Nov 2006
 Stars Shine on East Gainesville, FL, Sep 2006 and Oct 2010
 Volunteer in Teaching Observatory at the University of Florida, Gainesville, 2006-2012

MEDIA COVERAGES

USA Today: Volunteers spot jumbo planet in star's 'habitable zone'
 NBC: NASA's Kepler mission uncovers 461 more potential planets to check out
 LA Times: Kepler data point to more planets in habitable zone
 Telegraph: Moons rather than planets are the best place to find aliens
 SDSS Blog: Ji Wang: A Rising Star in the Search for Exoplanets
 BBC: Seven-planet solar system found

TEACHING EXPERIENCES

2007-2009, Astro 1022L, Introduction to Astronomy, University of Florida

STUDENTS MENTORED

Joseph Schmitt, graduate student, Yale University, 2012-
 Lamiya Mowla, graduate student, Yale University, 2014-
 Alyssa Picard, undergraduate student, Yale University, 2012-
 Cory Combs, undergraduate student, Yale University, 2012-
 Charles Margossian, undergraduate student, Yale University, 2013-

REFERENCES AVAILABLE TO CONTACT

Dr. Jian Ge (e-mail: jge@astro.ufl.edu; phone: +1-352-392-2052(228))

- Professor, Astronomy, University of Florida
- *Dr. Ge is my Ph.D. adviser.*

Dr. Debra Fischer (e-mail: debra.fischer@yale.edu; phone: +1-203-432-1613)

- Professor, Astronomy
Yale University
- *Dr. Fischer is my postdoc mentor.*

Dr. Eric B. Ford (e-mail: ericbford@gmail.com; phone: +1-814-863-5558)

- Professor, Astronomy
The Pennsylvania State University
- *Dr. Ford is my Ph.D. co-adviser and collaborator.*

Dr. Justin R. Crepp (e-mail: jcrepp@nd.edu; phone: +1-574-631-4092)

- Professor, Astronomy
University of Notre Dame
- *Dr. Crepp is my collaborator.*

Dr. Geoffrey Marcy (e-mail: gmarcy@berkeley.edu; phone: +1-510-642-1952)

- Professor, Astronomy
University of California at Berkeley,
- *Dr. Marcy is an independent reference.*