

John Asher Johnson

California Institute of Technology
Department of Astronomy & Astrophysics
1216 E. California Blvd.
Pasadena, CA 91125

Office: (626) 395-2920
johnjohn@astro.caltech.edu
<http://astro.caltech.edu/~johnjohn>

Education

University of California, Berkeley

Ph.D. Astrophysics

May 2007

Thesis: *Planet Hunting In New Stellar Domains*

Advisor: Geoffrey W. Marcy

M.A. Astrophysics

December 2002

University of Missouri-Rolla

B.S. Physics

December 1999

Employment History

Assistant Professor of Astronomy and Astrophysics

2009-present

California Institute of Technology

NSF Astronomy and Astrophysics Postdoctoral Fellowship

2007-2009

University of Hawaii Institute for Astronomy

Research Scientist, LIGO Project

Jan 2000 – August 2000

California Institute of Technology

Research Interests

- The detection of planets around other stars (exoplanets) using high-precision Doppler measurements (I am the first author on papers announcing a total of 22 exoplanet discoveries.)
- Studying the relationships between the physical properties of stars and the occurrence of giant planets
- The characterization of exoplanet spin-orbit angles using in-transit Doppler measurements
- The characterization of transiting exoplanets using high-cadence photometry
- Doppler follow-up of transiting planet candidates in the NASA *Kepler* mission target field to measure planet masses and orbital characteristics
- Characterizing the stellar properties of M-type dwarf stars using broad-band photometry and high-resolution spectroscopy

Honors and Awards

Sagan Fellowship (2009, declined)

Princeton Henry Norris Russell Postdoctoral Fellowship (2007, declined)

UC Berkeley President's Postdoctoral Fellowship (2007, declined)

UC Berkeley Uhl Prize for Outstanding Scholarly Achievement (2007)

UC Berkeley Chancellor's Opportunity Fellowship (2000-2004)

UC Berkeley Outstanding Graduate Student Instructor Award (2002)

UC Berkeley Teaching Effectiveness Award (2002)

Minority Engineering Program Scholarship (UMR, 1998-1999)

Refereed Publications (1st or 2nd author)

HAT-P-30b: A transiting hot Jupiter on a highly oblique orbit

Johnson, J. A., Winn, J. N., Bakos, G. A., Hartman, J. D., Morton, T. D., et al. 2011, ApJ in press, arXiv1103.3825

On the Low False Positive Probabilities of Kepler Planet Candidates

Morton, T. D., **Johnson, J. A.**, 2011, ApJ in press, arXiv1101.3511

Estimates of the Planet Yield from Ground-based High-contrast Imaging Observations as a Function of Stellar Mass

Crepp, J. R., **Johnson, J. A.**, 2011, ApJ, 733, 126

LHS 6343 C: A Transiting Field Brown Dwarf Discovered by the Kepler Mission

Johnson, J. A., Apps, K., Gazak, J. Z., Crepp, J. R., et al. 2011, ApJ, 730, 79

Retired A Stars and Their Companions VI. A Pair of Interacting Exoplanet Pairs

Johnson, J. A., Payne, M., Howard, A. W., Clubb, K. I., Ford, E. B., et al., 2011, AJ, 141, 16

The NASA-UC Eta-Earth Program: II. A Planet Orbiting HD 156668 with a Minimum Mass of 4 Earth Masses

Howard, A. W., **Johnson, J. A.**, Marcy, G. W., Fischer, D. A., et al., 2011, ApJ, 726, 73

A hot Jupiter orbiting the 1.7 Msun Subgiant HD102956

Johnson, J. A., Bowler, B. P., Howard, A. W., Henry, G. W., et al., 2010, ApJ Letters, 721L, 153

The HAT-P-13 Exoplanetary System: Evidence for Spin-Orbit Alignment and a Third Companion

Winn, J. N., **Johnson, J. A.**, Howard, A. W., Marcy, G. W., et al., 2010, ApJ, 718, 575

Retired A Stars and Their Companions. IV. Seven Jovian Exoplanets from Keck Observatory

Johnson, J. A., Howard, A. W., Bowler, B. P., Henry, G. W., et al., 2010, PASP, 122, 701

Giant Planet Occurrence in the Stellar Mass-Metallicity Plane

Johnson, J. A., Aller, K. M., Howard, A. W., Crepp, J. R., 2010, PASP, 122, 905

The California Planet Survey. II. A Saturn-Mass Planet Orbiting the M Dwarf Gl 649

Johnson, J. A., Howard, A. W., Marcy, G. W., Bowler, B. P., et al., PASP, 122, 149

The California Planet Survey I. Four New Giant Exoplanets

Howard, A. W., **Johnson, J. A.**, Marcy, G. W., Fischer, D. A., et al., 2010, ApJ, 721, 146

A Third Exoplanetary System with Misaligned Orbital and Stellar Spin Axes

Johnson, J. A., Winn, J. N., Albrecht, S., Howard, A. W., Marcy, G. W., Gazak, J. Z., 2009, PASP, 121, 1104

HAT-P-7: A Retrograde or Polar Orbit, and a Third Body

Winn, J. N., **Johnson, J. A.**, Albrecht, S. A., Howard, A. W., et al., 2009, ApJ Letters, 703, 99

On the Metal Richness of M Dwarfs with Planets

Johnson, J. A., Apps, K., 2009, ApJ, 699, 933

A Smaller Radius for the Transiting Exoplanet WASP-10b

Johnson, J. A., Winn, J. N., Cabrera, N., E., Carter, J. 2008, ApJL, 692, 100L

Measurement of the Spin-Orbit Angle of Exoplanet HAT-P-1b

Johnson, J. A., Winn, J. N., Narita, N., Enya, K., et al., 2008, ApJ, 686, 649

The Prograde Orbit of Exoplanet TrES-2b

Winn, J. N., **Johnson, J. A.**, Narita, N., Suto, Y., Turner, E. L., et al., 2008, ApJ, 682, 1283

Retired A Stars and Their Companions II: Jovian planets orbiting kappa CrB and HD167042

Johnson, J. A., Marcy, G. W., Fischer, D. A., et al., 2008, ApJ, 675, 784

Planets Around Massive Subgiants

Johnson, J. A., 2008, ASP Conference Series: Extreme Solar Systems, 398, 59

A New Planet Around an M Dwarf: Revealing a Correlation Between Exoplanets and Stellar Mass

Johnson, J. A., Butler, R. P., Marcy, G. W., Fischer, et al., 2007, ApJ, 670, 833

Retired A Stars and Their Companions: Exoplanets Orbiting Three Intermediate-Mass Subgiants

Johnson, J. A., Fischer, D. A., Marcy, G. W., Butler, R. P., Wright, et al., 2007, ApJ, 665, 785

An Eccentric Hot Jupiter Orbiting the Subgiant HD 185269

Johnson, J. A., Marcy, G. W., Fischer, D. A., Henry, G., Wright, J. T. et al. 2006, ApJ, 652, 1724

The N2K Consortium VI: Doppler Shifts Without Templates and Three New Short-Period Planets

Johnson, J. A., Marcy, G. W., Fischer, D., Laughlin, G., Butler, R. P., et al. 2006, ApJ, 647, 600

A Long-period Jupiter-mass Planet Orbiting the Nearby M Dwarf GL 849

Butler, R. P., **Johnson, J. A.**, Marcy, G. W., Wright, J. T., Vogt, S. S., Fischer, D. A., 2006, PASP, 118, 1685

Spin-Orbit Alignment for the Eccentric Exoplanet HD 147506b

Winn, J. N., **Johnson, J. A.**, Peek, K. M. G., Marcy, G. W., 2007, ApJ, 665L, 167

Measurement of the Spin-Orbit Alignment in the Exoplanetary System HD 189733

Winn, J. N., **Johnson, J. A.**, Marcy, G. W., et al. 2006, ApJL, 653, L69

KH 15D: A Spectroscopic Binary

Johnson, J. A., Marcy, G. W., Hamilton, C. M., Herbst, W., & Johns-Krull, C. M. 2004, AJ, 128, 1265

The History of the Mysterious Eclipses of KH 15D: Asiago Observatory, 1967-1982

Johnson, J. A. & Winn, J. N. 2004, AJ, 127, 2344

The History of the Mysterious Eclipses of KH 15D II. Asiago, Kiso, Kitt Peak, Mount Wilson, Palomar, Tautenburg, and Rozhen Observatories, 1954-1997

Johnson, J. A., Winn, J. N., Rampazzi, F., Barbieri, C., Mito, H., et al. 2005, AJ, 129, 1978

Other Refereed Publications

Five Planets Orbiting 55 Cancri

Fischer, D. A.; Marcy, G. W.; Butler, R. P.; Vogt, S. S.; Laughlin, G.; Henry, G. W.; Abouav, D.; Peek, K. M. G.; Wright, J. T.; **Johnson, John A.**, et al. 2008 ApJ, 675, 790

HAT-P-10b: A light and moderately hot Jupiter transiting a K dwarf

Bakos, G. A.; Pal, A.; Torres, G.; Sipocz, B.; Latham, D. W.; Noyes, R. W.; Kovacs, Geza; Hartman, J.; Esquerdo, G. A.; Fischer, D. A.; **Johnson, J. A.**, et al. 2008 arXiv:0809.4295

HD 147506b: A Supermassive Planet in an Eccentric Orbit Transiting a Bright Star

Bakos, G. A.; Kovács, G.; Torres, G.; Fischer, D. A.; Latham, D. W.; Noyes, R. W.; Sasselov, D. D.; Mazeh, T.; Shporer, A.; Butler, R. P.; **Johnson, J. A.** et al., 2007 ApJ, 670, 826

HAT-P-1b: A Large-Radius, Low-Density Exoplanet Transiting One Member of a Stellar Binary

Bakos, G. A.; Noyes, R. W.; Kovács, G.; Latham, D. W.; Sasselov, D. D.; Torres, G.; Fischer, D. A.; Stefanik, R. P.; Sato, B.; **Johnson, J. A.**, 2007 ApJ, 656, 552

The Transit Light Curve Project. VII. The Not-So-Bloated Exoplanet HAT-P-1b

Winn, J. N., Holman, M. J., Bakos, G., Pal, A., **Johnson, J. A.**, et al. 2007 AJ, 134, 1707

The N2K Consortium. III. Short-Period Planets Orbiting HD 149143 and HD 109749

Fischer, D.A., Laughlin, G., Marcy, G.W., Butler, R.P., Vogt, S.S., **Johnson, J.A.**, 2006 ApJ, 637, 1094

The Orbit and Occultations of KH 15D

Winn, J. N.; Hamilton, C. M.; Herbst, W. J.; Hoffman, J. L.; Holman, M. J.; **Johnson, J. A.**; Kuchner, M. J., 2006 ApJ, 644, 510

The N2K Consortium. II. A Transiting Hot Saturn around HD 149026 with a Large Dense Core

Sato, B.; Fischer, D. A.; Henry, G. W.; Laughlin, G.; Butler, R. P.; Marcy, G. W.; Vogt, S. S.; Bodenheimer, P.; Ida, S.; Toyota, E.; Wolf, A.; Valenti, J. A.; Boyd, L. J.; **Johnson, J. A.**, et al. 2005 ApJ, 633, 465

The N2K Consortium. I. A Hot Saturn Planet Orbiting HD 88133

Fischer, D. A.; Laughlin, G.; Butler, P.; Marcy, G.; **Johnson, J.**, et al. 2005 ApJ, 620, 481

Five New Multicomponent Planetary Systems

Vogt, S. S.; Butler, R. P.; Marcy, G. W.; Fischer, D. A.; Henry, G. W.; Laughlin, G.; Wright, J. T.; **Johnson, J. A.** 2005 ApJ 632, 638

Measurement of Spin-Orbit Alignment in an Extrasolar Planetary System

Winn, J. N.; Noyes, R. W.; Holman, M. J.; Charbonneau, D.; Ohta, Y.; Taruya, A.; Suto, Y.; Narita, N.; Turner, E. L.; **Johnson, J. A.** 2005 ApJ, 631, 1215

Five New Extrasolar Planets

Marcy, G. W.; Butler, R. P.; Vogt, S. S.; Fischer, D. A.; Henry, G. W.; Laughlin, G.; Wright, J. T.; **Johnson, J. A.** 2005 ApJ, 619, 570

KH 15D: Gradual Occultation of a Pre-Main-Sequence Binary

Winn, J. N., Holman, M. J., **Johnson, J. A.**, Stanek, K. Z., & Garnavich, P. 2004, ApJ, 603, 45