

# CURRICULUM VITAE

## Jonathan J. Fortney

### OFFICE ADDRESS:

Department of Astronomy & Astrophysics  
University of California, Santa Cruz  
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Santa Cruz, CA 95064

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### CURRENT POSITION:

July 2015-present:  
Professor, Department of Astronomy & Astrophysics, University of California, Santa Cruz  
Director, Other Worlds Laboratory (OWL)

### PREVIOUS RESEARCH POSITIONS:

July 2011-June 2015, Associate Professor, Department of Astronomy and Astrophysics,  
University of California, Santa Cruz  
January 2008-June 2011, Assistant Professor, Department of Astronomy and Astrophysics,  
University of California, Santa Cruz

### POSTDOCTORAL POSITIONS:

August 2006-December 2007, *Spitzer* Fellow, NASA Ames Research Center and Principal  
Investigator, Carl Sagan Center, the SETI Institute, Advisor: Mark S. Marley  
March 2004-July 2006, National Research Council (NRC) Postdoctoral Fellow, NASA Ames  
Research Center, Advisor: Mark S. Marley

### EDUCATION:

2004 – Ph.D., Planetary Sciences, University of Arizona  
Dissertation Title: “The Evolution of Giant Planets,” Advisor: William B. Hubbard  
1999 – B.S., Physics, Iowa State University, with Distinction and Honors Program

### MAJOR FIELDS OF INTEREST:

Atmospheres and spectra of rocky and gas giant exoplanets, super Earth and giant planet  
thermal evolution, planetary interiors, exoplanet characterization through transit photometry  
and direct imaging, formation of giant planets, atmospheres and evolution of low mass stars  
and brown dwarfs, stellar abundances

### HONORS and AWARDS:

2021, Simons Investigator in Astrophysics  
2020, Paolo Farinella Prize  
2018, National Finalist, Blavatnik Award for Young Scientists  
2015, 2013, 2008, Kavli Fellow, National Academy of Sciences  
2010, Urey Prize, American Astronomical Society, Division for Planetary Sciences  
2010, Alfred P. Sloan Research Fellowship  
2006, NASA Early Career Fellowship in Planetary Sciences

## **INVITED LECTURESHIPS:**

- 2022, Distinguished Lectures on Exoplanets, Peking University
- 2017, Ahrens Lecture, Geologic and Planetary Sciences, California Institute of Technology
- 2016, Yuval Ne'eman Distinguished Lectures in Geophysics, Atmospheric, and Space Sciences, Tel Aviv University

## **INVITED CONFERENCE TALKS:**

- PLANET-ESLAB-2023 Understanding planets in the solar system and beyond, 2023, Planetary Atmospheres: Solar System and Exoplanet Connections
- AAS 241, Laboratory Astrophysics Division, 2023, JWST Early Release Science Observations
- 51 Pegasi b Science Summit, 2022, Exoplanet / Solar System Synergies
- Planets, Exoplanets and Their Systems in a Broad and Multidisciplinary Context, 2021, Hot Jupiter Atmospheres and Interior Structure
- Frontiers of Mesoscale Materials and High Energy Density Science, 2021, Giant Planet Interiors: The Role of High-Pressure Data
- Europlanet Science Congress, 2020, Giant Planets: The Era of New Insights Both Near and Far
- ESO Cosmic Duologs, 2020, Exoplanetary Atmospheres
- Future Exploration of the Ice Giants, 2020, Interior Structure and Energy Balance of Uranus and Neptune, 2020
- 51 Pegasi b Science Summit, 2019, The Next Decade of Exoplanets
- Exoplanet Exploration Program Analysis Group (ExoPAG), 2019. Laboratory Needs for Exoplanetary Atmospheres
- National Academy of Sciences, Chemistry Roundtable, 2018, Laboratory Needs for Exoplanetary Atmospheres
- 51 Pegasi b Science Summit, 2018, The Future of Giant Planet Science
- Astrophysical Frontiers in the Next Decade and Beyond, 2018, Exoplanet Atmospheres
- Exoplanets and Planet Formation (Shanghai), 2017, Structure of Giant Exoplanets
- MESA Summer School, 2017, Thermal Evolution of Giant Planets
- Advanced School on Exoplanetary Science, 2017, Exoplanetary Atmospheres
- High Energy Density Laboratory Astrophysics, 2016, Interiors of Giant Planets
- Exoplanets in the Era of Extremely Large Telescopes, 2016. Planetary Thermal Evolution
- Opportunity M: Small Planets around Small Stars, 2016. How Theorists Model Clouds & Hazes in Exo-Atmospheres
- High Energy Density Laboratory Astrophysics, Nine, 2016. Interior Structure of Planets
- Planetary Systems: A Synergistic View, 2015. Understanding Giant Planets from Exoplanet Spectra
- In the Spirit of Lyot, 2015. Exoplanet Atmospheres
- Physics of Exoplanets: From Earth-sized to Mini-Neptunes, 2015. Atmospheres and Interiors of Sub-Neptune Planets
- Exoplanets with JWST-MIRI, 2014. Planetary Atmosphere Modeling
- Saturn in the 21<sup>st</sup> Century, 2014. Interior Structure of Saturn
- Sagan Exoplanet Summer Workshop, 2014. Thermal Evolution of Giant & Rocky Planets
- Goldschmidt Conference, 2014, Exoplanet Atmospheres
- Exoclimates III: The Diversity of Planetary Atmospheres, 2014. Model Exoplanet Spectra
- Transiting Planets and JWST Workshop, 2014. Atmosphere of Gas Giant Planets

- Protostars and Planets VI, 2013. Interior Structure of Planets
- International Astronomical Union Symposium #299, 2013. Highlights of Exoplanet Characterization
- Exoplanet Exploration Program Analysis Group (ExoPAG) 6, 2012. Characterizing Transiting Planet Atmospheres: A Modeling Perspective
- Physics of Non-Ideal Plasmas 14, 2012. The Structure of Giant Planets
- Sagan Exoplanet Summer Workshop, 2012. Giant Planet Interiors
- The Origins of Stars and Their Planetary Systems, 2012. The Structure of Transiting Planets
- Exploring Giant Planets at the National Ignition Facility (NIF), 2011. Interior Structure of Exoplanets
- International Workshop on Warm Dense Matter, 2011. Interior Structure and Evolution of Giant Planets
- Exploring Strange New Worlds, 2011. Atmospheres of Earths and Super Earths
- 7<sup>th</sup> International School of Planetary Sciences, 2011. Structure and Evolution of Giant Planets
- Exploring Giant Planets at the National Ignition Facility (NIF), 2010. Exoplanets and Hydrogen and Helium Under High Pressure
- Division for Planetary Sciences of the AAS, 2010. Urey Prize Lecture: Characterizing Exoplanet Atmospheres
- Exoclimates: Exploring the Diversity of Planetary Atmospheres, 2010. Exoplanet Model Atmospheres Confronted with Data
- Sagan Exoplanet Summer Workshop: Stars as Homes for Habitable Planetary Systems, 2010. Planetary Interiors
- Sagan Exoplanet Summer Workshop: Planetary Atmospheres, 2009. Orbital Phase Observations of Exoplanets
- Sagan Exoplanet Summer Workshop: Planetary Atmospheres, 2009. The Warm Spitzer Mission
- Sagan Exoplanet Summer Workshop: Planetary Atmospheres, 2009. The Kepler Mission
- Kavli Frontiers of Science, National Academy of Sciences, 2008. Characterizing Planets around Other Stars
- ISSI Workshop on Planetary Magnetism, 2008. The Structure of Jupiter, Saturn, and Extrasolar Giant Planets
- LANL and LLNL Astrophysics Initiative Workshop, 2008. The Structure, Formation, and Evolution of Giant Planets
- Michelson Summer Workshop—Planetary Transits: Detection to Characterization, 2007. Mass-Radius Relations for Giant Planets
- Extreme Solar Systems, 2007. The Impact of Transit Observations on Planetary Physics
- American Astronomical Society, May, 2007. Luminosity and Detectability of Young Giant Planets
- University of Tokyo Workshop on Development of Extra-solar Planetary Science, 2006. On the Luminosity of Young Jupiters
- High Energy Density Laboratory Astrophysics, Six, 2006. High Pressure Equations of State and the Structure of Jupiter, Saturn, and Exoplanets
- Ultra Low-Mass Star Formation and Evolution, 2005. Young Jupiters are Faint: New Models of the Early Evolution of Giant Planets

### **OTHER CONFERENCE TALKS:**

- Exoplanets in our Backyard 2, 2022
- American Astronomical Society, 2021
- American Astronomical Society – Division for Planetary Sciences Meeting #52, 2020
- ARIEL Consortium Meeting, 2020
- Chesapeake Bay Area Exoplanets Meeting, 2020
- Exoclimes 5, 2019
- High Resolution Spectroscopy for Exoplanet Atmospheres, 2018
- American Astronomical Society – Division for Planetary Sciences Meeting #49, 2017
- Exoclimes 4, 2016
- American Astronomical Society – Division for Planetary Sciences Meeting #44, 2012
- Exoclimes 2, 2012
- Kepler Science Conference, 2011.
- American Astronomical Society – Division for Planetary Sciences Meeting #42, 2010
- American Astronomical Society – Division for Planetary Sciences Meeting #40, 2008
- IAU Symposium #253: Transiting Planets, 2008
- Spirit of Lyot, Berkeley, 2007
- Cool Stars 14, 2006
- Transiting Extrasolar Planets Workshop, 2006
- IAU Colloquium #200, Direct Imaging of Extrasolar Planets, 2005
- American Astronomical Society – Division for Planetary Sciences Meeting #37, 2005
- Tenth Anniversary of 51 Peg b: Status and Prospects for Hot Jupiter Studies, 2005
- Aspen Winter Conference on Astrophysics: Planet Formation and Detection, 2005
- European Geosciences Union, 2004
- American Astronomical Society – Division for Planetary Sciences Meeting #35, 2003
- American Astronomical Society - Division for Planetary Sciences Meeting #34, 2002

### **COLLOQUIA and SEMINARS:**

- NASA Jet Propulsion Laboratory, 2/2023
- IAU, Section G5 Stellar and Planetary Atmospheres, 11/2022
- University of Toledo, Department of Physics & Astronomy, 2/2022
- University of Toledo, Department of Physics & Astronomy, 1/2022
- New Mexico State University, Department of Astronomy, 9/2021
- University of Michigan, Department of Astronomy, 9/2021
- NASA Jet Propulsion Laboratory, 5/2020
- Harvard/Smithsonian Center for Astrophysics, 3/2020
- Leiden Observatory, 1/2020
- University of Amsterdam, Department of Astronomy, 1/2020
- University of Texas, Department of Astronomy, 10/2019
- NASA Ames Research Center, Space Science Division, 5/2019
- Stanford University, KIPAC, 2/2019
- NASA Goddard, Astrophysics Science Division, 11/2018
- University of Maryland, Department of Astronomy, 11/2018
- ETH-Zurich, 9/2018
- University of Zurich, Department of Physics, 9/2018
- Geneva Observatory, 8/2018
- University of Bern, Center for Exoplanets and Habitable Worlds, 8/18

- Canadian Institute for Theoretical Astrophysics (CITA), 5/2018
- UCLA, Department of Earth, Planetary, and Space Sciences, 5/2018
- UCLA, Astronomy Division, 5/2018
- Georgia Tech, Department of Earth and Planetary Sciences, 1/2018
- California Institute of Technology, Geologic and Planetary Sciences Division, 11/17
- Boston University, Center for Space Physics, 2/2017
- Harvard-Smithsonian Center for Astrophysics, SSP Division, 2/2017
- Tel Aviv University, Dept. of Geophysics, Atmospheric, and Space Sciences, 12/2016
- NASA Nexus for Exoplanet Systems Science (NExSS), 10/2016
- University of Nevada, Las Vegas, Department of Physics and Astronomy, 9/2016
- NASA Jet Propulsion Laboratory, 5/2016
- California Institute of Technology, Department of Astronomy, 5/2016
- MIT, Department of Earth, Atmospheric, and Planetary Sciences, 4/2016
- Harvard-Smithsonian CfA, Division of Solar, Stellar, and Planetary Science, 4/2016
- SOFIA Science Center, NASA Ames Research Center, 11/2015
- Johns Hopkins University, Department of Physics and Astronomy, 4/2015
- University of Toronto, Centre for Planetary Sciences, 1/2015
- University of Chicago, Department of Geophysical Sciences, 8/2014
- University of Washington, Astrobiology Program, 5/2014
- McMaster University, Origins Institute, 1/2014
- Wartburg College, Department of Physics, 9/2013
- Grinnell College, Department of Physics, 9/2013
- Iowa State University, Department of Physics and Astronomy, 9/2013
- California Polytechnic State University, Department of Physics, 4/2013
- The SETI Institute, 4/2013
- California Institute of Technology, Division of Geological and Planetary Sciences, 3/2013
- Institute for Advanced Study, 11/2012
- University of Arizona, Theoretical Astrophysics Program, 4/2012
- McGill University, Department of Physics, 2/2012
- Yale University, Department of Astronomy, 11/2011
- Yale University, Department of Geology & Geophysics, 11/2011
- University of Washington, Department of Astronomy, 10/2011
- IAP, Paris, 9/2011
- Cambridge University, Institute of Astronomy, 9/2011
- Fermilab, 6/2011
- California Institute of Technology, Division of Geological and Planetary Sciences, 4/2011
- University of Central Florida, Department of Physics, 4/2011
- University of Florida, Department of Astronomy, 4/2011
- Space Telescope Science Institute, 3/2011
- University of Colorado, Department of Astrophysical and Planetary Sciences, 2/2011
- Cornell University, Department of Astronomy, 4/2010
- Arizona State University, School of Earth and Space Exploration, 3/2010
- University of Minnesota, Department of Astronomy, 3/2010
- University of Arizona, Department of Planetary Sciences, 2/2010
- Harvard-Smithsonian CfA, Institute for Theory and Computation, 2/2010
- Texas A&M University, Department of Physics & Astronomy, 12/2009

- Sonoma State University, Department of Physics, 11/2009
- UCLA, Institute for Geophysics and Planetary Physics, 5/2009
- University of Hawaii, Astrobiology Institute, 3/2009
- University of Arizona, Department of Planetary Sciences, 2/2009
- University of California, Santa Cruz, Department of Earth & Planetary Sciences, 11/2008
- Ohio State University, Department of Astronomy, 10/2008
- University of Virginia, Department of Astronomy, 2/2008
- Michigan State University, Department of Physics & Astronomy, 9/2007
- Carnegie Institution of Washington, Department of Terrestrial Magnetism, 3/2007
- University of California, Berkeley, Center for Integrative Planetary Science, 3/2007
- University of California, Santa Cruz, Department of Astronomy & Astrophysics, 1/2007
- University of California, Santa Cruz, Department of Astronomy & Astrophysics, 11/2006
- Lawrence Livermore National Laboratory, Inst. for Geophys. & Planetary Phys., 10/2006
- The SETI Institute, 8/2006
- Harvard University, Department of Earth and Planetary Sciences, 3/2006
- MIT, Department of Earth, Atmospheric, and Planetary Sciences, 2/2006
- University of British Columbia, Department of Physics and Astronomy, 2/2006
- University of Florida, Department of Astronomy, 1/2006
- San Francisco State University, Department of Physics and Astronomy, 11/2005
- Harvard-Smithsonian CfA, Division of Solar, Stellar, and Planetary Science, 9/2005
- NASA Ames Research Center, Space Science and Astrobiology Division 4/2005
- UCLA, Institute for Geophysics and Planetary Physics, 2/2005
- SOFIA Science Center, NASA Ames, 10/2004
- Observatoire de la Cote d'Azur, Nice, France, 4/2004
- American Museum of Natural History, Astronomy and Astrophysics Division, 9/2003
- NASA Ames Research Center, Space Science and Astrobiology Division, 11/2002
- Lawrence Livermore National Laboratory, 11/2002

## **SERVICE:**

Scientific Organizing Committee, Sagan Summer Workshop, 2023  
 Member, Steering Committee, Astro2020 Decadal Survey, 2019-2021  
 Member, NASA *Juno* Mission Interiors Working Group, 2019-  
 Director, OWL Exoplanet Summer Program, UC Santa Cruz, 2017-  
 Member, NASA Neptune-Odyssey Mission Study Team, 2019-2020  
 Founding Member, NASA Nexus for Exoplanet Systems Science (NExSS), 2015-2021  
 Member, Gemini Planet Imager (GPI) Exoplanet Survey Science Team, 2009-2020  
 Scientific Organizing Committee, Towards Other Earths 3, 2020  
 Member, NASA Astrophysics Division Senior Review, 2019  
 Organizer, AAS Splinter Session, Biosignatures in the 2030s and Beyond, 1/2019  
 Member, NASA Science and Technology Definition Team (STDT) for the Origins Space  
 Telescope, 2018-19  
 Scientific Director, Kavli Summer Program in Astrophysics: Exoplanetary Atmospheres, 2016  
 Member, NASA *Cassini* Mission Science Team, 2016-2019  
 Scientific Organizing Committee, Landscape of Precision Radial Velocity, 2018  
 Member, NASA Science Definition Team (SDT) for future Ice Giant space missions, 2015-17  
*Kepler* Mission Collaborator, 2011-2017  
 Member, Hubble Space Telescope Exoplanet Advisory Committee, 2015-16

Member, Keck Telescope Strategic Planning Committee, Exoplanets Panel, 2015-16  
 Astronomy Department Undergraduate Curriculum Committee, 2008-  
 Chair, 2012-  
 Scientific Organizing Committee, Exoeclipse, 2017  
 Scientific Organizing Committee, Linking Exoplanet and Disk Compositions, 2016  
 Scientific Organizing Committee, Exoclimates 4, 2016  
 Scientific Organizing Committee, High Energy Density Laboratory Astrophysics (HEDLA),  
 2016  
 Scientific Organizing Committee, AAS Division for Planetary Sciences, Annual Meeting,  
 2013, 2015  
 Chair, Faculty Search Committee, Astronomy & Astrophysics, 2014-15  
 NOAO Telescopes TAC, 2013-2015  
 Member, Executive Committee of the NASA Exoplanet Exploration Program Analysis Group  
 (ExoPAG), 2012-2015  
 UCSC Physical and Biological Sciences, TA Committee, 2013-2014  
 UCSC Physical and Biological Sciences, Undergrad Research Awards Committee, 2013-2015  
 Scientific Organizing Committee, Exoplanets with JWST-MIRI, 2014  
 Scientific Organizing Committee, Sagan Summer Workshop, 2014  
 Scientific Organizing Committee, Second Kepler Science Conference, 2013  
 NASA *Kepler* Participating Scientists Program, Review Panel Chair, 2013  
 Referee for: Science, Nature, Astrophysical Journal, Astronomical Journal, Astronomy and  
 Astrophysics, MNRAS, Icarus, Astronomical Notes, Nature Geosciences, Nature  
 Astronomy, Nature Communications, Physical Review, Publications of the Astronomical  
 Society of the Pacific, Computer Physics Communications  
 Member, *Kepler* Mission Science Team, 2008-2011  
 Keck Telescope, NASA Time Allocation Committee, 2007-2010  
 Head of Exoplanets TAC, 2008-2009  
*Spitzer* Space Telescope Time Allocation Committee, Galactic Panel, 2007, 2010, 2013  
 Graduate Admissions Committee, 2008-2011  
 Graduate Advising Committee, 2011-12, 2013-14  
 Faculty Search Committee, Department of Earth & Planetary Sciences, 2008-09, 2013-14,  
 2015-16  
 NSF Astronomy & Astrophysics Panel, 2009, 2013  
 NASA Space Interferometry Mission (SIM) Science Studies, Planets & “Super” Panels, 2008  
 UC Santa Cruz, Dept. of Astronomy & Astrophysics, Colloquium Comm., 2008, 2011, 2012,  
 2013, 2015  
 Scientific Organizing Committee, High Energy Density Physics (HEDP) 1 / High Energy  
 Density Laboratory Astrophysics (HEDLA) 8, 2008  
 Local Organizing Committee, Navigator Program Forum, 2007

**PROFESSIONAL AFFILIATIONS:**

American Astronomical Society  
 AAS Division for Planetary Sciences,  
 American Geophysical Union

**CLASSES TAUGHT:**

*Ay2* Overview of the Universe (introductory undergraduate level)

*Ay3* Planetary Systems (introductory undergraduate level)  
*Ay8* Exploring the Universe with Astronomical Data (introductory undergraduate level)  
*Ay9*, Introduction to Research in Physics and Astrophysics (introductory undergraduate level)  
*Ay112* Physics of Stars (advanced undergraduate level)  
*Ay118* Physics of Planetary Systems (advanced undergraduate level)  
*Ay220A* Stellar Structure and Evolution (graduate level)  
*Ay222* Stars and Planets II (graduate level)  
*Ay223* Planetary Physics (graduate level)

**STUDENTS SUPERVISED:**

Evan Davis, Graduate Student, 2022-  
Aditya Sengupta, Graduate Student, 2022-  
Sagnick Mukherjee, Graduate Student, 2020-  
Yao Tang, Graduate Student, 2020-  
Linfeng Wan, Graduate Student, 2019-  
Callie Hood, Graduate Student, 2017-  
Maggie Thompson, Graduate Student, 2017-2023  
Katherina Feng, Graduate Student, 2014-2020  
Chris Mankovich, Graduate Student, 2014-2019  
Daniel Thorngren, Graduate Student, 2013-2019  
Mikey Nayak, Graduate Student, 2015-16  
Caroline Morley, Graduate Student, 2010-16  
Eric Lopez, Graduate Student, 2009-2014  
Neil Miller, Graduate Student, 2008-2013  
Katie Morzinski, Graduate Student, 2008-2011

Sydney Haith, Undergraduate Student, 2021-2022  
Sawyer Hall, Undergraduate Student, 2021-2022  
Lorraine Nicholson, Undergraduate Student, 2021-2022  
J.T. Earwicker, Undergraduate Student, 2021-2022 (senior thesis)  
Austin Dymont, Undergraduate Student, 2020-2022 (honors senior thesis)  
Neel Patel, Undergraduate Student, 2021-2022  
Max Galloway, Undergraduate Student, 2021-2022 (senior thesis + extra year)  
Lili Manzo, Undergraduate Student, 2020 (senior thesis)  
Robert Schroder, Undergraduate Student, 2017-2020 (senior thesis)  
Christopher Myers, Undergraduate Student, 2015-2020 (senior thesis)  
Kieren Henaghen, Undergraduate Student, 2019 (senior thesis)  
Zafar Rustamkulov, Undergraduate Student, 2015-19 (honors senior thesis)  
Nicholas Tasker Undergraduate Student, 2018-19 (honors senior thesis + extra year)  
Tyler Neely, Undergraduate Student, 2018-19 (senior thesis)  
Owen Book, Undergraduate Student, 2018-19 (senior thesis)  
Takahito Yoshida, Undergraduate Student, 2018-19 (senior thesis)  
Adam Smith, Undergraduate Student, 2016-18 (senior thesis + extra year)  
Gabriela Hernandez, Undergraduate Student, 2017-18 (honors senior thesis)  
Heather Eagle, Undergraduate Student, 2017-18 (senior thesis)  
Ruoyan Wang, Undergraduate Student, 2016-18 (senior thesis)



Christopher Seay, Undergraduate Student, 2015-18 (senior thesis + extra year)  
Dillon Teal, Undergraduate Student, 2014-16 (senior thesis + extra year)  
Alfredo Calderon, Undergraduate Student, 2016  
Puttiwat Kongkaew, Undergraduate Student, 2013-15 (honors senior thesis)  
Alvaro Zamora, Undergraduate Student, 2015  
Freddy Cisneros, Undergraduate Student, 2014-15  
Cezar Montero, Undergraduate Student, 2014-15 (senior thesis)  
John Chapman, Undergraduate Student, 2013-2015 (senior thesis)  
Andrew Stine, Undergraduate Student, 2015 (senior thesis)  
Jason Elhaderi, Undergraduate Student, 2014-2015 (senior thesis)  
Amelia Callahan, Undergraduate Student, 2014-2015 (senior thesis)  
Giovannina Mansir, Undergraduate Student, 2014-2015 (senior thesis)  
Kyle Luther, Undergraduate Student, 2014  
Bryce Harling, Undergraduate Student, 2013-2014 (senior thesis)  
Jacob Lustig-Yaeger, Undergraduate Student, 2012-2014 (honors senior thesis + extra year)  
Larissa Nofi, Undergraduate Student, 2011-2013 (senior thesis)  
Erik Worth, Undergraduate Student, 2013 (senior thesis)  
John Kolpin, Undergraduate Student, 2011-2013 (senior thesis)  
Jennifer Mulder, Undergraduate Student, 2011-2012 (honors senior thesis)  
Jacob Bruns, Undergraduate Student, 2010-2012 (senior thesis)  
Megan Shabram, Undergraduate Student, 2008-2010 (honors senior thesis + extra year)  
Jon Jonson, Undergraduate Student, 2008-2009 (senior thesis)

**POSTDOCS SUPERVISED:**

Benjamin Idini, UC Presidents Fellow, 2022-  
Z.J. Zhang, NASA Sagan Fellow, 2022-  
Melodie Kao, 51 Pegasi b Fellow, 2021-  
Paul Dalba, NSF Fellow, 2021-  
Elizabeth Bailey, 51 Pegasi b Fellow, 2020-  
Naor Movshovitz, 2016-  
Kazumasa Ohno, JSPS Fellow, 2021-2023  
Xinting Yu, 51 Pegasi b Fellow, 2019-2022  
Joshua Krissansen-Totton, NASA Sagan Fellow, 2019-2022  
Peter Gao, NASA Sagan Fellow, 2020-2021  
Natasha Batalha, UC Presidents Fellow, 2018-2020  
Henriette Schwarz, Morrison Fellow, 2017-2019  
Thedodora Karalidi, 2017-2019  
Ian Crossfield, NASA Sagan Fellow, 2016-17  
Tyler Robinson, NASA Sagan Fellow, 2015-17  
Michael Line, 2013-16  
Vivien Parmentier, NASA Sagan Fellow, 2014-15  
Kevin Moore, 2013-15  
Nadine Nettelmann, 2009-2010, 2012-14  
Philip Nutzman, 2010-2012  
Eliza Miller-Ricci Kempton, NASA Sagan Fellow, 2009-2012

PUBLICATIONS  
Jonathan J. Fortney

**40,300 citations, *h*-index =107, from NASA ADS**

**RESEARCH PAPERS IN REFEREED JOURNALS:**

- 366) Brogi, M., Emeka-Okafor, V., Line, et al (2023), "The Roasting Marshmallows Program with IGRINS on Gemini South I: Composition and Climate of the Ultrahot Jupiter WASP-18 b," *The Astronomical Journal*, 165, 91.
- 365) Feinstein, A. D., Radica, M., Welbanks, et al (2023), "Early Release Science of the exoplanet WASP-39b with JWST NIRISS," *Nature*, 614, 670.
- 364) Alderson, L., Wakeford, H. R., Alam, M. K., et al (2023), "Early Release Science of the exoplanet WASP-39b with JWST NIRSpec G395H," *Nature*, 614, 664.
- 363) Rustamkulov, Z., Sing, D. K., Mukherjee, S., et al (2023), "Early Release Science of the exoplanet WASP-39b with JWST NIRSpec PRISM," *Nature*, 614, 659.
- 362) Ahrer, E.-M., Stevenson, K. B., Mansfield, M., et al (2023), "Early Release Science of the exoplanet WASP-39b with JWST NIRCам," *Nature*, 614, 653.
- 361) JWST Transiting Exoplanet Community Early Release Science Team, S. (2023), "Identification of carbon dioxide in an exoplanet atmosphere," *Nature*, 614, 649.
- 360) Piaulet, C., Benneke, B., Almenara, J. M., et al. (2023), "Evidence for the volatile-rich composition of a 1.5-Earth-radius planet," *Nature Astronomy*, 7, 206.
- 359) Iyer, A. R., Line, M. R., Muirhead, P. S., Fortney, J. J., & Gharib-Nezhad, E. (2023), "The SPHINX M-dwarf Spectral Grid. I. Benchmarking New Model Atmospheres to Derive Fundamental M-dwarf Properties," *The Astrophysical Journal*, 944, 41.
- 358) Mukherjee, S., Batalha, N. E., Fortney, J. J., & Marley, M. S. (2023), "PICASO 3.0: A One-dimensional Climate Model for Giant Planets and Brown Dwarfs," *The Astrophysical Journal*, 942, 71.
- 357) Quanz, S. P., Absil, O., Benz, W., et al (2022), "Atmospheric characterization of terrestrial exoplanets in the mid-infrared: biosignatures, habitability, and diversity," *Experimental Astronomy*, 54, 1197.
- 356) Ohno, K., Thao, P. C., Mann, A. W., & Fortney, J. J. (2022), "A Circumplanetary Dust Ring May Explain the Extreme Spectral Slope of the 10 Myr Young Exoplanet K2-33b," *The Astrophysical Journal*, 940, L30.
- 355) Coulter, D. J., Barnes, J. W., & Fortney, J. J. (2022), "Jupiter and Saturn as Spectral Analogs for Extrasolar Gas Giants and Brown Dwarfs," *The Astrophysical Journal Supplement Series*, 263, 15.
- 354) Brande, J., Crossfield, I. J. M., Kreidberg, L., Oklopčić, A., Polanski, A. S., Barman, T., Benneke, B., Christiansen, J. L., Dragomir, D., Foreman-Mackey, D., Fortney, J. J., Greene, T. P., Howard, A. W., Knutson, H. A., Lothringer, J. D., Mikal-Evans, T., & Morley, C. V. (2022), "A Mirage or an Oasis? Water Vapor in the Atmosphere of the Warm Neptune TOI-

674 b," *The Astronomical Journal*, 164, 197.

353) Panwar, V., Désert, J.-M., Todorov, K. O., Bean, J. L., Stevenson, K. B., Huitson, C. M., Fortney, J. J., & Bergmann, M. (2022), "A new method to correct for host star variability in multiepoch observations of exoplanet transmission spectra," *Monthly Notices of the Royal Astronomical Society*, 515, 5018.

352) Mukherjee, S., Fortney, J. J., Batalha, N. E., Karalidi, T., Marley, M. S., Visscher, C., Miles, B. E., & Skemer, A. J. I. (2022), "Probing the Extent of Vertical Mixing in Brown Dwarf Atmospheres with Disequilibrium Chemistry," *The Astrophysical Journal*, 938, 107.

351) Dymont, A. H., Yu, X., Ohno, K., Zhang, X., Fortney, J. J., Thorngren, D., & Dickinson, C. (2022), "Cleaning Our Hazy Lens: Exploring Trends in Transmission Spectra of Warm Exoplanets," *The Astrophysical Journal*, 937, 90.

350) McGruder, C. D., López-Morales, M., Kirk, J., Espinoza, N., Rackham, B. V., Alam, M. K., Allen, N., Nikolov, N., Weaver, I. C., Ortiz Ceballos, K., Osip, D. J., Apai, D., Jordán, A., & Fortney, J. J. (2022), "ACCESS: Confirmation of a Clear Atmosphere for WASP-96b and a Comparison of Light Curve Detrending Techniques," *The Astronomical Journal*, 164, 134.

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