

Sarah Ballard

CONTACT INFORMATION	MIT Torres Fellow for Exoplanetary Research 77 Massachusetts Ave. #37-241 Cambridge MA 02139 USA	Voice: (617) 249-3081 Fax: (617) 253-3111 sarahba@mit.edu http://space.mit.edu/~sarahba/
EDUCATION & EMPLOYMENT	NASA Carl Sagan Fellow , University of Washington, Seattle WA 98195 <ul style="list-style-type: none">• Fall 2012-Summer 2015• Sponsor: Professor Eric Agol Harvard University , Cambridge, MA USA <ul style="list-style-type: none">• Ph.D., Astronomy & Astrophysics, May 2012<ul style="list-style-type: none">• Thesis title: <i>In Pursuit of New Worlds: Searches for and Studies of Transiting Exoplanets from Three Space-Based Observatories</i>• Advisor: Professor David Charbonneau University of California, Berkeley , Berkeley, CA USA <ul style="list-style-type: none">• B.A., Astrophysics, May 2007<ul style="list-style-type: none">• With Highest Distinction• Minor in Physics	
RESEARCH INTERESTS	Detection and study of extrasolar planets with near-infrared and optical photometry, formation of planets, characterization of exoplanetary host stars, photometric techniques	
AWARDS AND SCHOLARSHIPS	L'Oréal <i>For Women in Science</i> Fellowship (2015) Torres Fellowship, Massachusetts Institute of Technology (2015) NASA Carl Sagan Postdoctoral Fellowship, University of Washington (2012) NSF Astronomy & Astrophysics Postdoctoral Fellowship (2012, declined) AAS Roger Doxsey Travel Prize (January 2012) Harvard Bok Center for Teaching, Certificate of Distinction in Teaching (2009)	
PROPOSALS AND GRANTS	Principal Investigator on <i>Spitzer</i> Director's Discretionary Proposal <ul style="list-style-type: none">• "The First Exoplanet Smaller than the Earth" (DDT 541)• Awarded 18 hours, 2010 Principal Investigator on Apache Point Observatory 3.5 m Proposal <ul style="list-style-type: none">• "Characterizing the M Dwarf Hosts to Super-Earth Sized Planets Identified by the Kepler Mission"• Awarded 6 half-nights (2012) and 10 half-nights (2013) Co-Investigator on <i>Spitzer</i> Proposal <ul style="list-style-type: none">• "Two Eyes on the Prize: Revealing the Complete Architectures of Planetary Systems through Transit Timing with <i>Kepler</i> and <i>Spitzer</i>" (PI: Fabrycky; GO 10127)• Awarded 100 hours, 2014 Co-Investigator on <i>Spitzer</i> Proposal <ul style="list-style-type: none">• "Validating the First Habitable-Zone Planet Candidates Identified by the NASA <i>Kepler</i> Mission" (PI: Charbonneau; GO 80117)• Awarded 600 hours, 2011	

ACADEMIC
SERVICE

NASA *Hubble* Fellowship Proposal Reviewer (2015)
NASA Astrophysics Data Analysis Program Proposal Reviewer (2014)
NASA Earth and Space Sciences Graduate Fellowship Proposal Reviewer (2014)
NASA *Spitzer* Cycle 11 Proposal Reviewer (2014)

Referee for *Science* (2014–), *The Astrophysical Journal* (2012–), *Astronomy & Astrophysics* (2011–), *Publications of the Astronomical Society of the Pacific* (2012–)

Speaker & moderator at Inclusive Astronomy Conference, Vanderbilt University (2015)

Editorial author, on topics related to equity in science [[Full list here](#)]

Developed Impostor Syndrome workshop, conducted at University of Washington, Harvard University, University of Illinois, Vanderbilt, University of Michigan, & MIT [[Resources published online here](#)]

TEACHING &
ADVISING

University of Washington, Seattle, WA

Graduate Advisor

- Jack Moriarty (2014–current), *The Kepler Dichotomy in Planetary Disks: Linking Kepler Observables to Simulations of Late-Stage Planet Formation*

Undergraduate Advisor

- Justin Long (2013–2014), *Exoplanet Host Star Characterization by Proxy*
Awarded the Mary Gates Research Scholarship [[Abstract link](#)]
- Megan Brehm (2014), *Stellar Magnetic Activity and Planet Parking* [[Abstract link](#)]
- David Bordenave (2014-2015), *In Search of Trojan Asteroids in Exoplanetary Systems* [[Abstract link](#)]
- Jessica Shank (2014), *Understanding M Dwarfs and Their Planets* [[Abstract link](#)]

Guest Lecturer

- Graduate Observational Techniques (Ay 581), Prof. Hawley, 2014
- Undergraduate Observational Techniques (Ay 481), Prof. Laws, 2014
- Undergraduate Research Seminar (Ay 400), Prof. Dalcanton, 2013, & Prof. Hawley, 2014
- Modern Topics for Non-Science Majors (Ay 190), Prof. Meadows, 2013
- NASA Space Grant Seminar (Earth & Space Science 495), Prof. Hartnett, 2013
[[Video link](#)]

Harvard University, Cambridge, MA

Teaching Fellow

- Science A-35, Professor Bob Kirshner, Spring 2009

Student, Astronomy 302: “Scientists Teaching Science”

- Instructor: Dr. Philip Sadler, Spring 2011
- Course on techniques for effective science education

PUBLICATIONS

Refereed Publications (7 first author, 16 total)
[[ADS link](#)]