

Gregory J. Gilbert

Postdoctoral Scholar

University of California, Los Angeles

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Research Interests

exoplanets | planet formation | orbital dynamics | computational methods | science pedagogy

Education

PhD in Astronomy & Astrophysics, University of Chicago 2014-2021

Advisor: Prof. Daniel C. Fabrycky

BA in Physics, Washington University in St. Louis 2004-2008

Teaching

Teaching Assistant, University of Chicago

ASTR: The Big Bang 2020

ASTR: Galaxies 2017

ASTR: Stars 2016

PHYS: Stellar Astronomy 2015

CHEM: Chemistry of Earth's Atmosphere 2014

Head of Science Curriculum, Academic Approach (Chicago, IL) 2011-2014

Led a team of six teachers and writers to produce lesson plans and exams for use by over 100,000 high school students in Chicago Public Schools. Recruited, vetted, and trained new team members. Oversaw quality and scientific accuracy of all published materials covering physics, chemistry, biology, and earth sciences.

Science/Math Instructor, Academic Approach (Chicago, IL) 2008-2014

Instructed grade 9-12 students at all levels of math and science, including algebra, geometry, calculus, statistics, physics, and chemistry. Guided over one hundred students through the college application process.

Peer Mentor, Washington University in St. Louis 2005-2008

Tutored undergraduates in General Physics I & II. Facilitated weekly small group study sessions. Assisted faculty advisor in developing problem sets and training new peer mentors.

Advising

Mason MacDougall, UCLA graduate student 2021-present

Devin Hoover, U.Chicago undergrad 2020

Observing

Keck/HIRES, 3 nights 2022

Magellan/LDSS3-C, 2 nights 2015

Service & Outreach

Journal Referee , Astronomical Journal Astronomy & Astrophysics	2020-present
Skype-a-Scientist (x3)	2021
Departmental Committees , University of Chicago	
Diversity, Equity, and Inclusion Advising/Mentorship subgroup	2020
Education and Outreach	2019
Teaching Physical Science Division	2017
Undergraduate Curriculum	2017

Awards

Future Investigators in NASA Earth, Space Sciences, and Technology Fellowship	2020-2021
Pierazzo International Student Travel Award	2017
University of Chicago Physical Science Teaching Prize (nominee x2)	2015, 2017

Talks

★ = invited

*The Ohio State University	Columbus, OH 2021
Exomoons Cool Worlds Lab	virtual 2021
*University of California, Los Angeles	virtual 2020
*Penn State University	virtual 2020
Exoplanets III	virtual 2020
Princeton/IAS	virtual 2020
Lake Michigan Exoplanet Meeting	Chicago, IL 2019
*Depaul University	Chicago, IL 2018
Chicagoland Exoplanet Meeting	Chicago, IL 2017

Publications

SAO/NASA Astrophysics Data System list available at gjgilbert.github.io/cv

TESS-Keck Survey XIV: 2 giant exoplanets from the distant giants survey	<i>submitted</i>
Van Zandt, JE · MacDougall, MG · Petigura, EA · Gilbert, GJ · et al.	
Implicit biases in transit models using stellar pseudo density	2022
Gilbert, GJ · MacDougall, MG · Petigura, EA	
Accurate modeling of grazing transits using umbrella sampling	2021
Gilbert, GJ	
Planetary period ratio sculpting near second-order mean motion resonances	2021
Bailey, N · Gilbert, GJ · Fabrycky, DC	
An information theoretic framework for classifying exoplanetary system architectures	2020
Gilbert, GJ · Fabrycky, DC	
A search for water in the atmosphere of HAT-P-26b using LDSS-3C	2016
Stevenson, KB · Bean, JL · Seifahrt, A · Gilbert, GJ · et al.	