

Ben Cassese

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EDUCATION

Ph.D. (in progress) , Astronomy, Columbia University	2021-
M.Phil. (in progress) , Astronomy, Columbia University	2021-
M.A. (in progress) , Astronomy, Columbia University	2021-
B.S. Planetary Science and History, California Institute of Technology	2016-2020
History Thesis: <i>No Special Genius: Modern Federal Litigation of Partisan Gerrymandering</i>	

PUBLICATIONS

As First Author:

1. **Cassese, B.** & Kipping, D. (2022) "[Kepler-1708 b-i is likely undetectable with HST](#)", *MNRAS*, 516, 3701

As Co-Author:

1. (Submitted to PSJ) Trumbo, S., Davis, M.R., **Cassese, B.** & Brown, M.E. (2022) "Spectroscopic mapping of Io's surface with HST/STIS: SO₂ frost, sulfur allotropes, and large-scale compositional patterns"

CONFERENCE TALKS

- Cassese, B.** & Kipping, D. (2022), "[Detectability of Galilean Moon Analogs with JWST](#)", Exoplanets IV, Las Vegas, NV, 105.01
- Cassese, B.** & Stevenson, D. (2018) "[Feasibility of in-situ water production during fast-accreting super-earth formation](#)", 50th AAS DPS Meeting, Knoxville, TN, 101.01

TEACHING

As Instructor:

ASTR 1904: Astronomy Lab I, Columbia	Fall 2022
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As Teaching Assistant:

ASTR 1610: Theories of the Universe, from Babylon to Big Bang, Columbia	Spring 2022
ASTR 1404: Stars, Galaxies, and Cosmology, Columbia	Fall 2021
Ge/Ay 103: Introduction to Planetary Science, Caltech (4.89/5 review)	Spring 2020
Ge 1: Earth and Environment, Caltech (4.9/5 review)	Spring 2018

Training:

Teaching Development Program Foundational Track	2021-2022
Columbia Center for Teaching and Learning	

AWARDS AND FELLOWSHIPS

AAS Media Fellowship, American Astronomical Society	2022
Fritz B. Burns Prize, Division of Geological and Planetary Sciences, Caltech	2019
Beckman Political Science Award, California Institute of Technology	2019
Perpall Speaking Competition Winner, California Institute of Technology	2019
Gee Family Poster Competition Winner, California Institute of Technology	2018
George W. Housner Student Discovery Fund, California Institute of Technology	2018
Perpall Speaking Competition Finalist, California Institute of Technology	2018

TELESCOPE TIME

As PI:

MDM Hiltner 2.4m Telescope:

Cassese, B. 2022b, “Attempted Recovery of a Distant Trans-Neptunian Object”, 5 nights

As Co-I:

MDM McGraw-Hill 1.3m Telescope:

Yahalomi, D., **Cassese, B.**, Sayeed, M., Hattori, & S. 2022b, “Photometric Confirmation and Ephemeris Refinement of TESS Planet Candidates”, 5 nights

CHEOPS Mission:

Edwards, B., **Cassese, B.**, & 3 others. 2022 DDT, “Catching the Transit of a Long Period Planet to Support Future Atmospheric Characterization”, 14 orbits

PROFESSIONAL ENGAGEMENT

Columbia University Astronomy Department	
Admissions visit co-coordinator	2023
American Astronomical Society	
AAS Media Fellow: Writer for AAS Nova	2022-2023
Astrobites Collaboration	
Co-Chair, Science Policy Committee	2022-2023
Member, Scheduling Committee	2022-2023
Author	2022-2024
National Academy of Sciences, Space Studies Board	
Lloyd V. Berkner Space Policy Intern (<i>Astro2020 Decadal Survey staff</i>)	2019
AAS Division of Planetary Science Federal Relations Subcommittee	
Undergraduate Member	2018-2020

SCIENCE COMMUNICATION

With AAS Nova:

[New Life for Lunar Seismic Data](#) (10/2022)

[Software Updates: The Latest from the Astropy Project](#) (9/2022)

[Beginnings of a Branch](#) (9/2022)

With Astrobites:

[Asteroids in the Archives](#) (10/2022)

[A Conversation with Dr. Julie Davis, AAS Bahcall Fellow](#) (7/2022)

(Re)discovering Gravity (6/2022)
 Star light, lamp bright (5/2022) [Carried by [AAS Nova](#) (6/2022)]
 Teamwork Across Timezones: The Transit of TOI-2180 b (4/2022)
 The bigger they are, the smaller their moons? (2/2022)

OUTREACH AND MENTORING

Mentor, grad/undergrad mentoring program, Columbia Astronomy	2021-present
Mentor, Independent Inquiry Project, Inspired Teaching Demonstration School	2021-2022
<i>Mentored an 8th grade project on exoplanets</i>	
Volunteer Tutor, RISE Program , Caltech Y	2016-2019

SOFTWARE

astro-forecaster	2021
<i>A vectorized and packaged up rewrite of <code>forecaster</code> from Chen & Kipping 2017.</i>	

OTHER PRESENTATIONS

At Home Institution:

Inter-department STEM Grad Talks, Graduate School of Arts and Sciences	Oct. 2022
Astrofest 2022, Columbia Astronomy Dept.	Sept. 2022
Columbia Astro “Friends of the Department” Meeting, Columbia Astronomy Dept.	Jun. 2022
Pizza Lunch, Columbia Astronomy Dept.	Nov. 2021
Small Council Donors Meeting, Cool Worlds Lab	Nov. 2021

At Other Institutions:

GothamFest 2021, Flatiron Institute Center for Computational Astrophysics	Dec. 2021
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