

Elise Cutts
Curriculum Vitae

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EDUCATION

2020–Pres. Massachusetts Institute of Technology (MIT)
Ph.D. Geobiology [anticipated 2025], adv. Tanja Bosak

2019–2020 California Institute of Technology (Caltech)
B.S. Geobiology

PUBLICATIONS

Conference Abstracts

2020 J. Miura, B. Ehlmann, R. Greenberger, E. Cutts “Microimaging Infrared Spectroscopy for Characterization of Martian Meteorite Compositional Diversity.” LPSC LI, Abstract # 2969

2018 E. Cutts, B. Ehlmann, R. Greenberger, J. Beckett, E. Stolper “Visible and Shortwave Infrared Spectroscopy of Martian Meteorites.” LPSC XLIV, Abstract # 2749

FELLOWSHIPS AND HONORS

Fellowships and Grants

2020–2025 Graduate Research Fellowship, National Science Foundation
MIT, Dept. of Earth, Atmospheric and Planetary Sciences

2020–2021 Ida M. Green Fellowship, MIT
MIT, Dept. of Earth, Atmospheric and Planetary Sciences

2019–2020 Fulbright Grant, Institute of International Education
University of Southern Denmark, Nordcee

- 2018 James J. Morgan Summer Undergraduate Research Fellowship, Caltech
Caltech, Dept. of Geological and Planetary Sciences
- 2017 Mary Vodopia Summer Undergraduate Research Fellowship, Caltech
Caltech, Dept. of Geological and Planetary Sciences
- 2016 Summer Undergraduate Research Fellowship, Caltech
NASA Jet Propulsion Laboratory

Awards and Honors

- 2018 Fritz B. Burns Prize in Geology, Caltech
- 2017 Howard Reynolds Memorial Prize in Geology, Caltech
- 2015 Bonnie Cashin Prize for Imaginative Thinking, Caltech

EXPERIENCE

Research

- 2020 University of Southern Denmark
Oxygen and Cyanobacterial Carbon Fixation, Adv. Don Canfield
Fulbright Grant
- 2018 Caltech
Microbial Deep-Sea Chitin Degradation, Adv. Victoria Orphan
U.G. research, James J. Morgan Summer Undergraduate Research Fellowship
- 2017 Caltech
Imaging Spectroscopy of Martian Meteorites Adv. Bethany Ehlmann
U.G. research, Mary Vodopia Summer Undergraduate Research Fellowship
- 2016 NASA Jet Propulsion Laboratory
Ocean Carbonate Chemistry of Europa, Adv. Steve Vance

Teaching

Teaching Assistant, Caltech Principles of Biology (2018, 2019)

Teaching Assistant, Caltech, Astrobiology (2018, 2019)

Teaching Assistant, Caltech, Frontiers in Geology and Planetary Sciences (2018, 2019)

Teaching Assistant, Caltech, Introduction to Planetary Sciences (2017)

Communications and Publications

2018-2019 Caltech Office of Strategic Communications
Science Writing Intern

2016–2019 *The Big T* (Caltech Yearbook)
Editor-In-Chief

2018–2019 *The Caltech Letters*
Graphics Editor

PROFESSIONAL TRAINING

2020 Introduction to Computer Science and Programming Using Python
MITx, edX course ([certificate](#))

2020 Data Analysis for the Life Sciences
HarvardX, edX professional certificate (in progress)

- Statistics and R ([certificate](#))
- Introduction to Linear Models and Matrix Algebra (in prog.)

2020 Biophotonics
University of Southern Denmark, 5 ETCS PhD course (audited)

SCIENCE COMMUNICATION AND OUTREACH

Published Science Writing

2019 [“Learning to Craft Handmade Scientific Tools in the Automated Age.”](#) *The California Tech*

- 2019 [“Newly Discovered Giant Planet Slingshots Around Its Star.”](#) *Caltech News*
- 2019 [“STEMonstrators Connect With Local Students.”](#) *Caltech Magazine*
- 2019 [“Famed Oceanographer Walter Munk Dead at 101.”](#) *Caltech News*
- 2019 [“Electron Tomography Database Changes the Game.”](#) *Caltech News*
- 2019 [“Q&A: Creating a Virtual Seismologist.”](#) *Caltech News*
- 2019 [“Frances Arnold Wins 2019 Bower Award for Achievement in Science.”](#) *Caltech News*
- 2018 [“Cracking Open a Cold One With the Flies.”](#) *Caltech News*
- 2018 [“Superfast Jet Observed Streaming Away from Stellar Collision.”](#) *Caltech News*
- 2018 [“Think Outside the Classroom.”](#) *The Big T* Volume 97 “Discovery”
- 2018 [“From Tycho’s Star to Shakespeare’s Page.”](#) *Caltech News*
2018. [“Vilcek Foundation Prize Awarded to Mikhail Shapiro.”](#) *Caltech News*
- 2018 [“Mikhail Shapiro Wins Roger Tsien Award”](#) *Caltech News*
- 2017 [“Wonder Women.”](#) *The Big T* Volume 96 “Beyond”

Podcasting

- 2018 Trek.fm Network Podcasts: Warp 5 Episode 136, Earl Gray Episode 237
Guest Scientist
- 2017–2018 *Strange New Worlds: A Science and Star Trek Podcast*
Co-Host

Public Talks and Panels

- 2018 Caltech Stargazing Lecture: The Science of Star Trek Q&A Panel

OTHER

Additional Published Writing

- 2019 *The Big T* Volume 98 “Make It So” (Editor-in-Chief)
- 2019 “Letter from the Editor,” *The Big T* Volume 96 *Make It So*
- 2019 “Statistically Significant,” *The Big T* Volume 96 *Make It So*
- 2018 [“Caltech Scholars Charged to ‘Sculpt’ Their Own Experience”](#) *Caltech News*
- 2018 [“Fox Stanton Track Reopens on South Field.”](#) *Caltech News*
- 2018 [“Caltech Awards Millikan Medal to Ben Rosen.”](#) *Caltech News*
- 2018 *The Big T* Volume 97 [“Discovery”](#) (Editor-in-Chief)
- 2018 [“Letter from the Editor.”](#) *The Big T* Volume 97 “Discovery”
- 2018 [“Good Trouble.”](#) *The Big T* Volume 97 “Discovery”
- 2018 [“Today Plus One.”](#) *The Big T* Volume 97 “Discovery”

- 2018 [“Live Long and Prosper,”](#) *The Big T* Volume 97 “Discovery”
- 2018 [“Lights Calculators Action,”](#) *The Big T* Volume 97 “Discovery”
- 2018 [“Orders of Magnitude,”](#) *The Big T* Volume 97 “Discovery”
- 2018 [“Sunfish,”](#) *The Big T* Volume 97 “Discovery”
- 2018 [“Ce n’est pas en Page,”](#) *The Big T* Volume 97 “Discovery”
- 2018 [“Spring Force,”](#) *The Big T* Volume 97 “Discovery”
- 2017 *The Big T* Volume 96 [“Beyond”](#) (Editor-in-Chief)
- 2017 [“Letter from the Editor,”](#) *The Big T* Volume 96 “Beyond”
- 2017 [“At Last!,”](#) *The Big T* Volume 96 “Beyond”
- 2017 [“Yeah Beavers!,”](#) *The Big T* Volume 96 “Beyond”
- 2017 [“If You Build It, They Will Come,”](#) *The Big T* Volume 96 “Beyond”
- 2017 [“In Comes Company,”](#) *The Big T* Volume 96 “Beyond”
- 2017 [“Fear or Fun,”](#) *The Big T* Volume 96 “Beyond”
- 2017 [“Firewall,”](#) *The Big T* Volume 96 “Beyond”
- 2017 [“Music Theory,”](#) *The Big T* Volume 96 “Beyond”
- 2017 [“Science by Day, Music by Night,”](#) *The Big T* Volume 96 “Beyond”