Tanja Kovačević (She/Her/Hers)

Ph.D. Candidate

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EDUCATION

University of California Berkeley — Fall 2020 – Current
Ph.D Candidate in the Earth and Planetary Science Department — *Berkeley, CA*

University of Colorado Denver — Fall 2017 – Spring 2020
B.S in Chemistry cum laude, ACS Certified – Minor in Mathematics — *Denver, CO*

Las Positas Community College — Fall 2013 – Spring 2016
A.A. in Mathematics and Science, A.A. in Social Science — *Livermore, CA*

RESEARCH

Graduate Student Researcher — Fall 2020 – Current
Computational Condensed Matter Physics | Earth and Planetary Science Department — *U.C. Berkeley*
Advisor: Burkhard Militzer

Undergraduate Research Assistant — Fall 2017 – Spring 2020
Computational Chemistry/Biophysics | Chemistry Department — *C.U. Denver*
Advisor: Hai Lin

Undergraduate Research Assistant — Summer 2019
Computational Fluid Dynamics | Nuclear Science and Engineering Department — *M.I.T.*
Advisor: Emilio Baglietto

PUBLICATIONS

[2] **T. Kovačević**, F. Cataldo-Gonzalez, S.T. Stewart, B. Militzer, "Miscibility of Rock and Ice in the Interiors of Water Worlds", Sci. Rep. 12, 13055 (2022). https://doi.org/10.1038/s41598-022-16816-w

[1] **T. Kovačević**, A. Skinner, J. Fisk, V. Fishback, S. Reed, "A Semester-Long, Organic Chemistry Laboratory Structured around Unknown Analysis and Resynthesis as a Bridge to Guided-Inquiry", *J. Chem. Educ.* 2020, 97, 6, 1633–1636, DOI: https://pubs.acs.org/doi/10.1021/acs.jchemed.9b01037

FUNDING

NSF GRFP Fellow — 2022 – 2025
National Science Foundation - Graduate Student Research Fellowship

H2H8 Fellow — 2022
Hearts to Humanity Eternal Reserach Grant

MARC U-STAR Scholar — 2018 – 2020
Maximizing Access to Research Careers Undergraduate Student Training for Academic Research

ORAL & POSTER PRESENTATIONS

[11] **Tanja Kovačević**, Felipe Gonzalez-Cataldo, Sarah T. Stewart, Burkhard Militzer, *Rock and Ice Miscibility Deep Within the Interiors of Water Worlds*, Gordon Research Conference, Holderness, New Hampshire, July 2022. POSTER

[10] **Tanja Kovačević**, Felipe Gonzalez-Cataldo, Sarah T. Stewart, Burkhard Militzer, *The Song of Rock and Ice - Seems Fuzzy to Me ft. Water World Interiors*, Gordon Research Seminar, Holderness, New Hampshire, July 2022. ORAL PRESENTATION

[9] **Tanja Kovačević**, Felipe Gonzalez-Cataldo, Sarah T. Stewart, Burkhard Militzer, *Miscibility of Rock & Ice in Water World Interiors*, Center for Matter under Extreme Conditions (CMEC) Review 2022, May 2022. ORAL PRESENTATION

[8] **Tanja Kovačević**, Felipe Gonzalez-Cataldo, Sarah T. Stewart, Burkhard Militzer, *An Investigation Into the Miscibility of Rock and Ice in Exoplanet Interiors Using Ab Initio Simulations*, Stewardship Science Academic Programs (SSAP) Symposium, February 2022. ORAL PRESENTATION

[7] **Tanja Kovačević**, Felipe Gonzalez-Cataldo, Sarah T. Stewart, Burkhard Militzer, *Miscibility of Rock and Ice in Exoplanet Interiors Using Ab Initio Simulations*, American Geophysical Union, New Orleans, December 2021. ORAL PRESENTATION

[6] Michael Manga, Sarina Patel, Sarah M Arveson, Kristina L Faul, Tyler Cadena, William Davis, **Tanja Kovačević**, Dan Frost, Sky Poindexter, Mercedes Vasquez, Daniel Enrique Ibarra, Diogo José Louro Lourenço, Kanani K M Lee, Edward Mischel Molter, and Julia DeMarines, *Integrating URGE deliverables into a department-level strategic plan for enhancing diversity*, American Geophysical Union, New Orleans, December 2021. ORAL PRESENTATION

[5] **Tanja Kovačević**, Felipe Gonzalez-Cataldo, Sarah T. Stewart, Burkhard Militzer, *Rock-Ice Mixtures in the Interiors of Sub-Neptunes*. Center for Material Under Extreme Conditions (CMEC) Advisory Committee Meeting, July 2021. ORAL PRESENTATION

[4] **Tanja Kovačević**, Danielle Miller, Liliya Vugmeyster, Michael Crowley, Hai Lin, *A Computational Study of The Villin Headpiece Subdomain HP36: The Effect of Hydration on Side Chain Dynamics in the Hydrophobic Core American Physical Society*, Online (Due to COVID) March 2020. POSTER

[3] **Tanja Kovačević**, Michael Acton, Emilio Baglietto, *Assessment of a Physics Based UQ Method for the Application of CFD*, MIT Summer Research Program Poster Session, Cambridge, MA, August 2019. POSTER

[2] **Tanja Kovačević**, Jillian Oviedo, Danielle Miller, Liliya Vugmeyster, Michael Crowley, Hai Lin, *Investigating the Dynamics of F58 within HP36 via Umbrella Sampling: A Computational Analysis*, Rocky Mountain Advanced Computing Consortium, Boulder, CO, May 2019. POSTER

[1] **Tanja Kovačević**, Danielle Miller, Liliya Vugmeyster, Michael Crowley, Hai Lin, *Villin Headpiece Subdomain HP-36: A Computational Analysis*, Society for the Advancement of Chicanos and Native Americans in Science Diversity in STEM Conference, San Antonio, TX, October 2018. POSTER

TEACHING EXPERIENCE

University of California Berkeley — Fall 2022 – Current
EPS 109 – Computer Simulations with Jupyter Notebooks

Mount Tamalpais College (San Quentin Prison) — Fall 2021 – Spring 2022
AST 217 – Astronomy – Instructor & Course Design – Spring 2022
EST 204 – Environmental Science – Tutor – Fall 2021

University of Colorado at Denver — Spring 2019 – Spring 2020
CHEM 3498 – Honors Organic Chemistry II – Teaching Assistant
Published to the ACS Chemical Education Journal | Paper

WORKSHOPS

NSF Center for Matter at Atomic Pressures - Undergraduate Summer School — Summer 2021
Guest Lecturer for 'Build that Planet!' - SPH Calculations — *Online*

AWARDS

Gordon Research Conference - Presentation Award 2022
U.C. Berkeley Grad Slam – Semi-Finalist 2022
NSF Graduate Research Fellowship Program *(honorable mention)* 2020
C.U. Denver Chemistry Outstanding Graduating Major 2020
C.U. Denver Mike Milash Teaching Assistant of the Year 2020
ACS Physical Chemistry Student of the Year 2019

OUTREACH & SERVICE

Gordon Research Conference – Junior Chair – Beyond Earth: Pressure as an Experimental Probe 2022
MPS Scholars Student Advisory Board Spring 2022 – Current
Berkeley EPS Graduate Student Representative Fall 2021 – Current
Unlearning Racism in the GEosciences (URGE) – Berkeley Pod 2021 – Current
P.O.W.E.R. - Mentor 2020 – 2022

PRESS

NPR - Connections with Evan Dawson May 2022
Experiences as a graduate student