Christopher Harper

Eugene, Oregon — charper4@uoregon.edu — (678) 654-9232 — US Citizen

Research Experience

University of Oregon, Eugene, Oregon — Oct 2025 – Sept 2027
NSF EAR Postdoctoral Fellow

- Independent research fellowship exploring completeness of the volcanic record

Education

University of Oregon, Eugene, Oregon — Aug 2018 – Aug 2025
PhD Earth Sciences — GPA: 3.94
Advisor: Josef Dufek

Georgia Institute of Technology, Atlanta, Georgia — Aug 2010 – Dec 2015
BS Applied Mathematics — GPA: 3.82 — *Highest Honors*
BS Applied Language and Intercultural Studies (Chinese) — *Highest Honors*

Publications

Accepted / In Print

- **Harper, C.**, Dufek J., Breard E. (2024). The role of compressional dynamics in setting the scale-dependent rheology of granular flows: Application to the emergence of thin layer stability. *Physical Review E.* `https://link.aps.org/doi/10.1103/qk3y-24s5`

Awaiting Publication

- Bussard, R., **Harper, C.**, Cashman, K., Karlstrom, L. (2024). A Novel Area-Based Methodology to Deriving an Intrinsic Length Scale of Clustering for a Variety of Volcanic Fields. *Accepted at Bulletin of Volcanology.*

Presentations and Talks

SZ4D community meeting , Long Beach — April 2026
Early Career Keynote Speaker: Volcanoes, Earthquakes, and Deposition as intenisty drivern processes (with a focus on volcanoes)

AGU, New Orleans — Dec 2025
Poster: Volcanoes as Random Variables

GRC Granular Matter, Massachusetts — June 2024
Poster and Speaker: The role of compressional dynamics in setting the scale-dependent rheology of granular flows

APS March Meeting, Minneapolis — March 2024
Speaker: Thin layer stability, compressibility, and non-local effects in granular systems

AGU, San Francisco — Dec 2023
Speaker: Completeness of the Volcanic Record

IAVCEI, Rotorua, New Zealand — Feb 2023
Poster: Mesoscale structures and thin layer stability in volcanic flows

Professional Development & Workshops

Kavli Institute for Theoretical Physics (KITP), Santa Barbara, CA — March 2026
Invited Participant, Soft Earth Geophysics Program

- Participated in a two-week intensive program focusing on the intersection of soft matter physics and geophysical processes.

Teaching Experience

University of Oregon, Graduate Teaching Assistant — Sept 2018 – Aug 2025

- Facilitated lab sections, hosted office hours, and delivered guest lectures for:
- *Mountains and Glaciers, Volcanoes and Earthquakes, Earth Physics, Computational Tools for Earth Science, Environmental and Geophysical Sensors, Exploring Earth History, Oceanography, Dynamic Planet Earth.*

Applerouth Tutoring & Chamblee High School, Atlanta, GA — 2016 – 2017

- Piloted a successful tutorial program for at-risk students, focusing on classroom management and standardized test preparation across all high school coursework.

Other Experience

U.S. Department of State, Washington, DC — Summer 2014
Intern, Bureau of East Asian and Pacific Affairs (Office of Taiwan Coordination)

Scholarships and Awards

NSF EAR Postdoctoral Fellowship — 2025
GRC Poster Award (One of four presentations selected for a talk) — 2024
Summer Research Fellowship, University of Oregon — 2019

Graduate Recruitment Award, University of Oregon 2018
Chinese Government Scholarship (Full year of study and stipend) 2014
Council of American Ambassadors Fellowship 2014
Georgia Tech - DC Internship Scholarship 2014
HuaYu Enrichment Scholarship (Language study in Taiwan) 2013