

AMY JENSON

ajjenson@alaska.edu ◇ <https://amyjenson.github.io/>

EDUCATION

University of Alaska Fairbanks

Ph.D. Geophysics (GPA: 4.00)

Aug 2022 - Present

Advisor: Dr. Martin Truffer

Monatana State University

M.S. Mathematics (GPA: 3.85)

Aug 2020 - May 2022

Advisor: Dr. Scott McCalla

University of Alaska Southeast

B.S. Mathematics (GPA: 3.98)

Aug 2016 - May 2020

Advisor: Dr. Jason Amundson

CURRENT APPOINTMENT

Fall 2022 - Present PhD Candidate, University of Alaska Fairbanks

Exploring the role of subglacial hydrology on seasonal velocity variability on tidewater glaciers using coupled ice-flow and subglacial hydrology models in Elmer

PUBLICATIONS

Jenson, A., Skidmore, M., Beem, L., Truffer, M., and McCalla, S.M. (2024). Modeling saline-fluid flow through subglacial channels. *The Cryosphere*, 18, 5451–5464. doi:10.5194/tc-18-5451-2024

Jenson, A., Amundson, J.M., Kingslake, J., and Hood, E. (2022). Long-period variability in ice-dammed glacier outburst floods due to evolving catchment geometry. *The Cryosphere*, 16, 333–349. doi:10.5194/tc-16-333-2022

CONFERENCE PRESENTATIONS

Jenson, A., Skidmore, M., Beem, L., Truffer, M., and McCalla, S.M.: Saline fluid flow in ice-walled channels. *Northwest Glaciologists* (2024) Oral

Truffer, M., Aberle, R., Christoffersen, M., Devaux-Chupin, V., **Jenson, A.**, Pohle, A.: Seasonality of ice flow at Sít'Tlein (Hubbard Glacier). *Northwest Glaciologists* (2024) Oral

Jenson, A., Truffer, M., Amundson, J.A., Ultee, E.: Disentangling the drivers of flow variability on Greenland outlet glaciers. *American Geophysical Union* (2023) Poster

Jenson, A., Truffer, M., Amundson, J.A., Ultee, E.: How does geometry affect outlet glacier response to runoff? *International Glaciological Society, Nordic Branch* (2023) Poster

Jenson, A., Truffer, M., Amundson, J.A., Ultee, E.: How does geometry affect outlet glacier response to runoff? *Northwest Glaciologists* (2023) Oral

Jenson, A., McCalla, S., Skidmore, M.: Brine flow through subglacial channels *Northwest Glaciologists* (2022) Oral

Jenson, A., Amundson, J.M., Kingslake, J., and Hood, E.: Evolving outburst flood hazards and impacts from glacier-dammed lakes: A case study of Mendenhall Glacier (Áak'w T'áak Sít'), Alaska *International Glaciological Society* (2022) Oral

Jenson, A., Amundson, J.M., Kingslake, J., and Hood, E.: How do changes in glacier and basin geometry affect the evolution of ice-dammed glacier outburst floods? *American Geophysical Union* (2021) Oral

Jenson, A., Amundson, J.M., Kingslake, J., and Hood, E.: Evolution of glacial lake outburst floods over annual to decadal timescales. *Northwest Glaciologists* (2020) Oral

INVITED TALKS

Jenson, A., Truffer, M., Amundson, J.A., Ultee, E.: Seasonal Variability in Alaska and Greenland Tidewater Glaciers: Patterns, Processes, and Projections. *Natural History Seminar, University of Alaska Southeast, Sitka* (2025)

Jenson, A., Truffer, M., Amundson, J.A., Ultee, E.: Drivers of change on Greenland marine-terminating outlet glaciers. *Science for Alaska, University of Alaska Fairbanks* (2024)

SCHOLARSHIPS, AWARDS, AND GRANTS

Fall 2025 Troth Yeddha' Award, University of Alaska Fairbanks

2024 - 2025 Outstanding Student Performance Award at the Geophysical Institute

Spring 2025 Alumni Association Grant for Women* in Science and Engineering organization

2022 - 2024 Schaible Geophysical Institute Fellowship, University of Alaska Fairbanks

2021 - 2022 Outstanding Graduate Teaching Assistant, Montana State University

2019 - 2020 Outstanding Graduate in Mathematics, University of Alaska Southeast

2019 - 2020 Biomedical Learning and Student Training Undergraduate Research Grant

TEACHING AND MENTORSHIP EXPERIENCE

Summer 2025 Mentored 2 undergraduate students on funded research projects: one on remote sensing of Greenland glaciers, and one on designing a museum outreach exhibit material.

Fall 2024 Co-Instructor of Record for Foundations of Geophysics, University of Alaska Fairbanks

Summer 2022 Instructor of Record for Calculus I (2 sections), Montana State University

Spring 2022 Lab Instructor for Calculus II, Montana State University

Fall 2021 Instructor of Record for Calculus I, Montana State University

Spring 2021 Instructor of Record for Survey of Calculus, Montana State University

CERTIFICATIONS/TRAININGS

2024 Glacier travel and crevasse rescue, University of Alaska Fairbanks

2020 Avalanche Level 1, University of Alaska Southeast

2019 - 2024 Wilderness First Responder, NOLS Wilderness Medicine

TECHNICAL SKILLS

Python, MATLAB, LaTeX, Elmer/Ice (Fortran), Github, QGIS

OUTREACH AND SERVICE

2023-Present Developing special exhibit on tidewater glacier change in Greenland and Alaska for Museum of the North at University of Alaska Fairbanks

Spring 2024 Scientist in Residence at the Sitka Sound Science Center

Fall 2024 Organizer of Northwest Glaciologists Conference

Fall 2024 Served on search committee for Cryosphere faculty hire at University of Alaska Fairbanks

2023 - Present Founder/president of Women and marginalized genders in Science and Engineering

Fall 2022 Reviewed manuscripts for *The Cryosphere*

PROFESSIONAL AFFILIATIONS

2021 - Present International Glaciological Society (IGS)

2021 - Present American Geophysical Union (AGU)