

Victor Devaux-Chupin

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Research Interests

Glacier dynamics and mass change, surge-type glaciers; remote sensing (LIDAR, SAR, Optical), big data analysis, geospatial data management, uncertainty quantification, interpolation and inverse methods, numerical modeling; data visualization, accessible science, outreach.

Education

2020–Present

Ph.D. – Geophysics, *University of Alaska Fairbanks*, Fairbanks, USA – *Advisor: Martin Truffer*

Thesis: Understanding glacier dynamics through remote sensing techniques

Participation in the McCarthy Glaciology Summer School (10 days), GlaMacLeS Machine Learning in Glaciology Summer School (10 days), FieldEx field safety and preparedness workshop (6 days), GeoSMART hackweek (4 days)

2018–2020

Master's Degree – Geophysics, *University of Grenoble-Alpes*, Grenoble, France

Major: Atmosphere, Climate, Continental Surfaces

2015–2018

Bachelor of Science – Geology, *University of Grenoble-Alpes*, Grenoble, France

Professional Appointments

Summer 2023

Intern – Alaska Satellite Facility, *University of Alaska Fairbanks*, Fairbanks, USA

2020–25

Graduate Student Assistant, *University of Alaska Fairbanks*, Fairbanks, USA

Summer 2020

Intern – Geography and Hydrology, *University of Oslo*, Oslo, Norway

Field Experience

2024

Gulkana Glacier; Alaska: passive seismic survey. Fall, 3 days.

2021–23

Sit' Tlein; Alaska: snow-pits, ground penetrating radar (snow + ice surveys), weather station, GNSS, surface mass balance stakes, GNSS setup, seismic investigation. Multiple campaigns in Summer, from 3 to 15 days.

2021

Sourdough Glacier; Alaska: seismic investigation, ground penetrating radar survey. Summer, 15 days.

North Slope; Alaska: LIDAR survey. Summer, 10 days.

2019

Longyearbyen; Svalbard: permafrost coring, ground penetrating radar. Winter, 3 days.

Finse; Norway: snow pits, Rutschblock tests, weather station maintenance. Spring, 4 days.

2018

Middalen; Norway: surface mass balance stakes, weather station maintenance. Fall, 3 days.

Hjerkin, Tronfjellet, Galdhøpiggen; Norway: permafrost coring, geomorphologic mapping, transient electro-magnetic, electrical resistivity. Fall, 7 days.

Professional Service and Outreach

2023, 2025

“Science for Alaska Kickoff”: Popular science presentations to the public.

2024–25

Student Union (AGWA) – Vice-president: Organizing Committee, Discrimination And Sexual Harassment workgroup, Grievances negotiation team, student representation, new students orientation.

2022–25

Undergraduate students outreach: introducing graduate student research. Yearly occurrence.

2021–24

Geophysical Institute Student Association – Vice-president, treasurer: Travel grant coordination, student cohort building organization, student representation, new students orientation.

2023–24

Associated Students of UAF – Student Senator: Finance committee, Travel grant system overhaul, new students orientation.

2023

UAF Student ambassador at AGU: UAF representation at the university booth. Networking with prospective students.

2021/24

Interviews in media outlets: Atlas Obscura and French national television about glaciers in Alaska.

Peer-reviewed Publications

- In Prep. **Devaux-Chupin, V.**, Truffer, M., Loso, M.G., Larsen, C.F., Fahnestock, M. – Validation of fluxgate-based mass balance calculation from remote sensing datasets over Sít' Tlein's (Malaspina Glacier) lobe. *To be submitted to The Cryosphere*
- In Prep. **Devaux-Chupin, V.**, Truffer, M., Larsen, C.F., Loso, M.G., Fahnestock, M. – Anatomy of a piedmont glacier surge: uncovering Sít' Tlein's (Malaspina Glacier) dynamic balance. *To be submitted to JGR: Earth Surface*
- 2025 **Devaux-Chupin, V.**, Truffer, M., Brinkerhoff, D., Fahnestock, M., Loso, M.G., Christoffersen, M.S., Daniel, M., Tober, B.S., Larsen, C.F., and Holt, J.W. "A Century of Flow and Surge History of Sít' Tlein (Malaspina Glacier), Southeast Alaska." *Journal of Glaciology*, 2025, 1-36. <https://doi.org/10.1017/jog.2025.10079>.
- 2025 Brinkerhoff, D., Tober, B.S., Daniel, M., **Devaux-Chupin, V.**, Christoffersen, M., Holt, J.W., Larsen, C.F., Fahnestock, M., Loso, M.G., Timm, K.M. and Mitchell, R., 2024. The demise of the world's largest piedmont glacier: a probabilistic forecast. *EGUsphere*, 2024, pp.1-52.

Presentations

- 2025 **Solid Earth Seminar, Georgia Institute of Technology** (Remote) - Squiggles, surges, and melt: an overview of Sít' Tlein's (Malaspina Glacier) ice dynamics. [Talk]
Northwest Glaciologists Meeting (Kananaskis) - Climatic mass balance of Sít' Tlein (Malaspina Glacier) [Talk]
- 2024 **American Geophysical Union** (Washington D.C.) - The impact of scale when calculating the Climatic Mass Balance of Sít' Tlein (Malaspina Glacier), Southeast Alaska. [Poster]
Northwest Glaciologists Meeting (Fairbanks) - Ice surface dataset analysis. [Talk]
- 2023 **Northwest Glaciologists Meeting** (Seattle) - DEM Differenciation of Sít' Tlein (Malaspina) glacier. [Talk]
American Geophysical Union (San Francisco) - 20 years of Climatic Mass Balance of Sít' Tlein (Malaspina Glacier), Southeast Alaska. [Lightning Talk]
- ITS_LIVE Tools: a comprehensive python package and interactive notebooks to download and analyze global glacier surface velocity data. [Poster]
- Streamlined processing and analysis of glacier surface velocity data using ITS_LIVE Tools [Talk]
- 2022 **American Geophysical Union** (Chicago) - A Century of Surges of Sít' Tlein (Malaspina Glacier), Southeast Alaska. [Poster, presented by M.Truffer]
Northwest Glaciologists Meeting (Moscow, Idaho) - Sít' Tlein glacier dynamics. [Talk]
IGS 2022 Maritime Glaciers International Symposium (Juneau, Alaska) - Flow and ice flux history of the Malaspina Glacier, Southeast Alaska, from Landsat 5 to 8 and Sentinel 1-2 images. [Talk]
- 2021 **American Geophysical Union** (New Orleans) - Ice-Flow and Surge History of the Malaspina Glacier, Alaska, From Landsat and Sentinel Data, and Autonomous Repeat Image Feature Tracking (autoRIFT). [Talk]
Northwest Glaciologists Meeting (Online) - 37 years of wiggling-ice: a history of movement and velocity for the Malaspina Glacier. [Talk]

Teaching

- 2025 **Arctic Ice Dynamics: Sea Ice in a Changing Climate** - Mentored of a group of students in developing a scientific project.
- 2022-2024 **Earthquakes, Volcanoes, Glaciers** - GEOS120/119. Lectures (8x2h), trained TAs, designed lab exercises for 3 semesters (>50 students each semester).

Awards

- 2024 **Brian R. Zelenka Memorial Award** for "hard working graduate student dedicated to the profession" Department of Geosciences, UAF. (Monetary award of \$2000).
- 2023 **IGS EGG Hackweek** - First place. Our group designed a study of the Hubbard Glacier from multiple remote-sensing datasets based on Copernicus data (Sentinel-1, ERA-5).
- 2023 **Peter MacKeith Memorial Award** for best student in glaciology/glacial geology. Department of Geosciences, UAF. (Monetary award of \$1000).
- 2023 **Geoscience Student Symposium**: first prize for best student talk. UAF.
- 2022 **Three Minute Thesis Presentation Competition**: Third place (jury), first place (people's choice). Graduate School, UAF.