

Dominik Fahrner
Postdoctoral Research Scholar, University of Oregon
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PROFESSIONAL EXPERIENCE

02/2022 - Present **Postdoctoral Scholar, Department of Earth Sciences**
UNIVERSITY OF OREGON, United States
Project: Greenland Ice Sheet Ocean Science Network; Investigating tidewater glacier-ocean interactions in Greenland.

EDUCATION

10/2018 – 02/2022 **PhD, Department of Geography and Planning/ Institute for Risk and Uncertainty**
UNIVERSITY OF LIVERPOOL, United Kingdom
Thesis: Ice dynamics of Greenlandic tidewater glaciers at large and small spatio-temporal scales.

09/2017 – 09/2018 **Master of Research in Risk and Decision Making**
UNIVERSITY OF LIVERPOOL, United Kingdom
Thesis: Climate-related multi-decadal retreat of tidewater glaciers in Greenland.
Overall grade: distinction (1.0)

09/2013 – 10/2014 **Master of Science in Geological and Environmental Hazards**
UNIVERSITY OF PORTSMOUTH, United Kingdom
Thesis: Deformation and friction of Stromboli basalt - A new approach to forecast flank instability.
Overall grade: distinction (1.0)

10/2009 – 09/2013 **Bachelor of Science in Geoscience**
LUDWIG-MAXIMILIANS-UNIVERSITÄT (LMU) & TECHNISCHE UNIVERSITÄT MÜNCHEN (TUM)
Thesis: Comparison of pumice clasts from proximal and distal fall deposits of the Sete Cidades Volcano (Azores, Portugal).
Overall grade: pass (2.8)

WORK EXPERIENCE

02/2018 – 07/2018 **Research Assistant**
GEOGRAPHIC DATA SCIENCE LAB, UNIVERSITY OF LIVERPOOL
Automating Landsat satellite imagery download and image processing using Python.

02/2015 – 04/2016 **Project Manager**
ANWENDUNGSZENTRUM GMBH OBERPFAFFENHOFEN
Management of international space related innovation projects, event organisation, budget overseeing, participant support, generation of marketing content, social media appointee, reporting, conference attendance.

12/2011 – 03/2013 **Student Assistant**
 DEPARTMENT FOR EARTH AND ENVIRONMENTAL SCIENCES, LMU
 Grain size distributions, high-pressure experiments, microscope analyses, data analyses.
 Side project: Co-Organisation of international network school including budget overseeing, catering, schedule, social activities.

09/2011 – 10/2011 **Intern**
 AQUASOLI GMBH & Co. KG, MUNICH
 Heavy dynamic probing, soil stability tests, supervision of European-wide construction sites.

TEACHING EXPERIENCE

First year courses: Geographic Information Systems *2018-2021*
 (GIS)
 Field trip (Human/Physical Geography) *2017-2019*

Second year courses: Geographic Information Systems *2019*
 (GIS)
 Climatology *2019*
 Programming and Statistics for Engineers *2018*

Third year courses: Natural Hazards and Society *2018*
 Geographic Data Science (incl. MSc) *2018-2020*

PhD courses: Analysis of human dynamics *2018-2021*

OTHER RELEVANT EXPERIENCE

- Participant in the Karthaus Summer School, Italy, 09/2019.
- Participant in the ERASMUS intensive programme 'Integrating classical and new field methods for geological hazard assessment and communication' in Húsavík, Iceland 06/2014.
- Outreach activities: Invited talk with primary school students, Q&A session with secondary school students.

SOFTWARE SKILLS

Python	very good	Matlab	good
QGIS	very good	Linux	good
MS Office	very good	R Studio	good
ArcGIS Desktop	good	JavaScript	basic

LANGUAGE SKILLS

German	native	Spanish	basic
English	fluent (IELTS 05/2017: 8.0)	French	basic

PUBLICATIONS

- [1] Goliber S., Black, T., Catania, G., Lea, J.M., Olsen, H., Cheng, D., Bevan, S., Bjork, A., Bunce, C., Brough, S., Carr, R.J., Cowton, T., Gardner, A., **Fahrner, D.**, Hill, E., Joughin, I., Korsgaard, N., Luckman, A., Moon, T., Murray, T., Sole, A., Wood, M., Zhang, E.: TermPicks: A century of Greenland terminus data for use in machine learning applications. *The Cryosphere, in review 04/2022*
- [2] **Fahrner, D.**, Lea, J.M., Brough, S., Mair, D.W.F., Abermann, J.: Linear response of the Greenland ice sheet's tidewater glacier terminus positions to climate. *Journal of Glaciology, 03/2021*
- [3] Chen, M., **Fahrner, D.**, Arribas-Bel, D., Rowe, F.: A reproducible notebook to acquire, process and analyse satellite imagery. *REGION, 12/2020*
- [4] Davison, B.J., Sole, A.J., Cowton, T.R., Lea, J.M., Slater, D.A., **Fahrner, D.**, Nienow, P.W.: Subglacial Drainage Evolution Modulates Seasonal Ice Flow Variability of Three Tidewater Glaciers in Southwest Greenland. *Geophysical Research Letters Earth Surface, 08/2020*.
- [5] Wadsworth, F.B., Heap, M.J., Damby, D.E., Hearne, R.L., Hess, K-U., Najorka, J., Vasseur, J., **Fahrner, D.**, Dingwell, D.B.: Local geology controlled the feasibility of vitrifying Iron Age buildings. *Nature Scientific Reports, 01/2017*
- [6] **Fahrner, D.**, Schaflinger, L.: Hochwasserrisikomanagement – Start-ups gegen Flutkatastrophen. *GIS.Business 03/2016*

CONFERENCE CONTRIBUTIONS

- [1] **Fahrner, D.**, Sutherland, D., Pettit, E., Amundson, J., Abib, N., Kienholz, C., Motyka, R.J.: Seasonal strain rate and force balance evolution from terrestrial radar data at LeConte Glacier, Alaska. *IGS 2022*
- [2] Shiggins, C., Lea, J.M., Harcourt, W., Shankar, S., Brough, S., **Fahrner, D.**: Observing iceberg size distributions and implications for calving processes. *EGU 2022, presentation*
- [3] **Fahrner, D.**, Gonzalez, P.J., Lea, J.M., Brough, S., Abermann, J.: Seasonal evolution of Narsap Sermia, SW Greenland, using time lapse imagery and high-resolution satellite radar data. *AGU 2021, presentation*.
- [4] Shiggins, C., Lea, J.M., Brough, S., **Fahrner, D.**: Automated iceberg detection using Google Earth Engine and ArcticDEM. *AGU 2021, presentation*.
- [5] **Fahrner, D.**, Gonzalez, P.J., Lea, J.M.: Seasonal velocity and strain evolution of Narsap Sermia, SW Greenland, using high-resolution satellite radar data. *IGS BB 2021, presentation*.
- [6] **Fahrner, D.**, Lea, J.M., Brough, S., Abermann, J.: Using sub-daily timelapse imagery to investigate the behaviour of Narsap Sermia, SW Greenland. *EGU 2021, presentation*.
- [7] Shiggins, C., Lea, J.M., **Fahrner, D.**, Brough, S.: Rapidly detecting icebergs using ArcticDEM and Google Earth Engine. *EGU 2021, presentation*.
- [8] **Fahrner, D.**, Lea, J.M., Davies, A., Abermann, J., Olsen, M.: Regional linear retreat patterns of Greenlandic tidewater glaciers over the past 34 years in response to climate forcing. *Arctic Science 2019, presentation*.
- [9] **Fahrner, D.**, Lea, J.M., Davies, A., Abermann, J., Olsen, M.: Regional linear retreat patterns of Greenlandic tidewater glaciers over the past 34 years in response to climate forcing. *IGS BB 2019, presentation*.
- [10] Davison, B.J., Sole, A.J., Cowton, T.R., Lea, J.M., **Fahrner, D.**: Subglacial drainage evolution modulates tidewater glacier ice flow variability. *EGU 2019, poster presentation*.

- [11] **Fahrner, D.**, Lea, J.M., Davies, A., Abermann, J., Olsen, M.: Greenland wide terminus change from 1984-2017: linear climate responses, and application of machine learning. *EGU 2019, poster presentation.*
- [12] Kueppers, U., Ellis, B., **Fahrner, D.**, Forni, F., Neukampf, J., Pimentel, A., Pacheco, J., Queiroz, M.: Gone with the wind: how to quantify the risk based on incomplete eruptive records on volcanic islands. An example of Sete Cidades volcano, Azores. *EGU 2018, poster presentation.*
- [13] Benson, P., **Fahrner, D.**, Harnett, C.E., Fazio E.: Time-dependent deformation at elevated temperatures in basalt from El Hierro, Stromboli and Teide volcanoes. *EGU 2014, poster presentation.*
- [14] Wadsworth, F.B., Scheu, B., Kennedy, B., Tuffen, H., Lavallée, Y., Hess, K.-U., von Aulock, F.W. Schaurath, J., **Fahrner, D.**, Dingwell, D.B.: Repose periods in cyclic Vulcanian activity: Textures and timescales of shallow magma densification. *Abstract, 2013 IAVCEI Meeting.*

INVITED NON-SCIENTIFIC PRESENTATIONS

- [1] 4th Copernicus National User Forum Prague, 05/2015, *Copernicus Masters - Launch your Bussiness with Big Data from Space.*
- [2] EURISY Workshop Vienna, 04/2015, *Copernicus Masters Announcement.*

April 1, 2022