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BENJAMIN H. HILLS

TRAINING

Postdoctoral Fellow | Colorado School of Mines
emphasis: Geophysics | primary advisor: Dr. Matthew Siegfried
National Science Foundation Office of Polar Programs

Ph.D. Earth and Space Science | University of Washington
emphasis: Glaciology/Geophysics | primary advisor: Dr. Knut Christianson
Thesis | *Exploring past and present ice-sheet dynamics with geophysically derived temperature and crystal orientation fabric*

M.S. Geoscience | University of Montana
emphasis: Glaciology | primary advisor: Dr. Joel Harper
Thesis | *In situ measurements and modeling used to constrain heat transfer in the western Greenland Ice Sheet*

B.S. Earth Science | Montana State University
emphasis: Snow Mechanics (Highest Honors)
Fundamentals of Engineering Exam passed 2014

TEACHING APPOINTMENTS

2022 – 2024	**Research Mentor** | Louis Stokes Alliance for Minority Participation | UW
2018 – 2022	**Graduate Teaching Assistant** | Earth and Space Sciences Department | UW
	OGIVE Summer Undergraduate Research Coordinator
	ESS 431 – Principles of Glaciology (including field trip)
	ESS 102 – Introduction to Geology (including field trip)
2015 – 2016	**Graduate Teaching Assistant** | Geosciences Department | UofM
	GEO 101 – Introduction to Physical Geology (including field trip)
Summer 2013	**Tutor** | Montana State University
	One-on-one tutoring for engineering courses

UNDERGRADUATE STUDENT MENTORSHIP

Jerusalem Sintayehu (Astronomy); Lucas Holt (Geophysics); Jonathan Ortiz-Candelaria (Informatics); Raphael Sauvage (Chemistry); Joshua Driscol (Atmospheric Sciences)

GRADUATE STUDENT MENTORSHIP

Hannah Verboncouer (Mines - radioglaciology); An Li (UW - planetary glaciology); Emma Erwin (UMaine - glaciology/climate); Marguerite Shaya (UW - radar polarimetry)

RESEARCH & INDUSTRY EXPERIENCE

2025 – present	**Senior Geophysicist** | Vista Clara Incorporated
	Geophysical nuclear magnetic resonance (NMR) for applications in groundwater resources, reclamation, mining, and geotechnical surveying.
2023 – 2025	**Postdoctoral Fellow** | Geophysics | Colorado School of Mines
	Leading investigation of ice-sheet resistive stresses using ice-penetrating radar.
	Building software to integrate radar data with spaceborne remote sensing.
	Graduate Research Assistant
2017 – 2023	- Earth and Space Sciences & Applied Physics Lab. | UW
	Geophysics campaigns in Antarctica and in the Pacific NW.
2017	- Fluid Dynamics & Solid Mechanics| Los Alamos National Lab
	Ice-sheet hydrology within a coupled climate model.
2015 – 2017	- Geosciences Department | UofM
	Ice-sheet temperature through measurements and models.

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SERVICE

2019 – present	Journal Peer Reviewer *Nature Communications; Geophysical Research Letters; Journal of Geophysical Research – Earth Surface; Journal of Geophysical Research – Planets; Journal of Glaciology; Annals of Glaciology; Acta Astronautica; IEEE Transactions on Geoscience and Remote Sensing; Earth Surface Dynamics; Atmospheric Measurement Techniques; The Cryosphere*
2024 - present	Quantarctica Theme Editor
2024 – 2025	AGU OSPA Coordinator for Cryosphere Section
2024 – 2025	AGU Landing Fellow
2022 – 2025	Louis Stokes Alliance for Minority Participation | University of Washington
Autumn 2024	NSF proposal panel reviewer
Winter 2024	NASA proposal panel reviewer
Autumn 2023	NSF proposal panel reviewer
Summer 2023	NASA proposal panel reviewer
2019 – 2023	Classroom Visits | Spencer Technology Academy | Chicago Public Schools
2018 – 2020	Rockin' Out | University of Washington
2015 – 2017	Interdisciplinary Collaboration Network | University of Montana
2014 – 2015	Volunteer Ski Patrol | Big Sky Ski Resort | Big Sky, MT

PROFESSIONAL AFFILIATIONS

2016 – present	American Geophysical Union
2017 – present	International Glaciological Society

GRANTS AND FELLOWSHIPS

submitted Jun '25	Collaborative Research: Quantifying glaciological process-scale variability with geophysical surveys in the vicinity of the Hercules Dome ice core site (collaborations with University of Washington and Stanford University). *NSF OPP Antarctic Sciences*. Lead PI.
submitted Nov '24	Ice content of Martian concentric crater fill (collaboration with the Planetary Science Institute). *NASA Mars Data Analysis Program*. Institutional PI.
submitted Oct '24	Refocusing on radiostratigraphy: Novel processing of radar sounding data for new insight into ice dynamics and ice-sheet history (collaborations with Newcastle University and Stanford University). *NASA Cryospheric Sciences Program*. Lead PI.
2023 – 2025	Postdoctoral Research Fellowship | NSF Office of Polar Programs | *$318,000*
2010 – 2014	Montana University Scholarship | *undergraduate tuition for four years*
2012	Direct Exchange | University of Canterbury | *exchange student tuition*

HONORS AND CERTIFICATIONS

2023	Best Glaciology Talk | UW ESS
2020	Outstanding Student Presentation Award | AGU Fall Meeting
2017	Top Scholar Award | University of Washington | *RA funding for one quarter*
2014	Fundamentals of Engineering | *NCEES*
2014	Emergency Medical Technician | *National Registry for EMTs*
2010	Distinguished Scholar | Helena Education Foundation

SHORT COURSE AND WORKSHOP EXPERIENCE

2023	InSAR Processing and Analysis | 1-Week | Earthscope
2023	Python for Data Sci. and ML Bootcamp | 25 Video Hours Online Course | Udemy
2022	ICECReW Workshop | 2-Week | US Ice Drilling Program
2020	ICESat-2 Hackweek | 2-Week | eScience Institute, UW
2017	How to Use Git and Github | 3-Week Online Course | Udacity
2015	Intro to Python Programming | 5-Week Online Course | Udacity

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FIELD EXPERIENCE

2025	Borehole NMR Hydrogeophysics | 1 Week | Clackamas, OR
2025	Surface NMR Hydrogeophysics | 1 Week | Navajo Nation
2025	Borehole NMR Hydrogeophysics | 1 Week | Moab, UT
2025	Rock Glacier Geophysics | 1 Week | Ouray, CO
2024	Permafrost Geophysics | 2 Weeks | Pingo National Landmark, NWT Canada
2022 – 2023	Glacier Geophysics Lead | 8 Weeks | Hercules Dome, Antarctica
2022	Glacier Geophysics Lead | 1 Week | Mt. Waddington, British Columbia
2019 – 2020	Glacier Geophysics | 10 Weeks | S. Pole and Herc. Dome, Antarctica
2018 – 2019	Glacier Geophysics | 10 Weeks | S. Pole and Herc. Dome, Antarctica
2018 – 2019	Ground-based Radar Interferometry | 3x 1-3-Day Trips | Mt. Baker, WA
2019	Drone Remote Sensing; Structure from Motion | 1-Day Trip | Mt. Baker, WA
2019	Glacier Mass Balance | 1 Week | South Cascade Glacier, North Cascades, WA
2018	Cryo-Microbiology | 2x 1-Day Trips | Mt. Baker, WA
2016	Hot-Water Drilling | 2 Weeks | Isunnguata Sermia, Greenland
2015	Hot-Water Drilling | 5 Weeks | Isunnguata Sermia, Greenland

PEER-REVIEWED ARTICLES (*STUDENT COAUTHOR)

in Review

Hills, B. H., Siegfried, M. R., Holschuh, N., Verboncoeur, H., Dustin M. Schroeder. Resolving radiostratigraphy with squinted synthetic aperture radar focusing. *Journal of Glaciology*.

Seltzer, C., **Hills, B. H.,** Cheng, A., Wolfenbarger, N. S., Schroeder, D M. Combined effects of meltwater and crystallographic orientations control radar reflections in temperate ice. *Geophysical Research Letters*.

*Verboncouer, H., **Hills, B. H.**, Siegfried, M. R., Abrahams, E., Holschuh, N. Subglacial Conditions Estimated from Unsupervised Clustering Analysis of Radar Bed-Echo Shape. *IEEE Journal of Selected Topics in Applied Earth Observation and Remote Sensing*.

*Cheng, A. H., Schroeder, D. M., Wolfenbarger, N. S., Shaper, R., Seltzer, C., **Hills, B. H.** Anisotropic melt inclusions as a confounding signal for1 ice-penetrating radar observations. *Geophysical Research Letters*.

Holschuh N., Christianson, K., Dienstfrey, W., **Hills, B. H.,** Hoffman, A., Paden, J., Winter, K., Zuraw, R. Entrained debris records regrowth of the Greenland Ice Sheet after the last interglacial. *Nature Geosciences*.

Ross, N., Sanderson, R. J., Kulessa, B., Siegert, M., Paxman, G. J. G., Nichols, K. A., Siegfried, M. R., Jamieson, S. S. R., Bentley, M. J., Jordan, T. A., Batchelor, C. L., Small, D., Eisen, O., Winter, K., Bingham, R. G., Callard, S. C., Carr, R., Dow, C. F., Fricker, H. A., Hill, E., **Hills, B. H.**, Hofstede, C., Jeofry, H., Napoleoni, F., Sauthoff, W. Review Article: The Foundation-Patuxent-Academy ice stream system, Antarctica. *The Cryosphere*.

2025

Hills, B. H., Young, T. J., Lilien, D. A., Babcock, E., Bienert, N., Blankenship, D., Bradford, J., Brighi, G., Brisbourne, A., Christianson, K., Dall, J., Drews, R., Eisen, O., Ershadi, M. R., Gerber, T. A., Holschuh, N., Jansen, D., Jordan, T. M., Karlsson, N. B., Matsuoka, K., Li, J., Martin, C., May, D., Oraschewski, F. M., Paden, J., Rathmann, N. M., Ross, N., Schroeder, D. M., Siegert, M., Siegfried, M. R., Smith, E., Zeising, O.. Radar Polarimetry in Glaciology: Theory, Measurement Techniques, and Scientific Applications for Investigating the Anisotropy of Ice Masses. *Reviews of Geophysics*.

Hills, B. H., Holschuh, N. D., Hoffman, A., Fudge, T. J., Horlings, A., Erwin, E., Steig, E. J., Christianson, K. Radar-derived crystal orientation fabric suggests divide stability at Hercules Dome during the last deglaciation. *Journal of Geophysical Research – Earth Surface*. https://doi.org/10.1029/2023JF007588.

Bingham, R. G., Bodart, J. A., Cavitte, M. G. P., Chung, A., Sanderson, R. J., Sutter, J. C. R., Eisen, O., Karlsson, N. B., MacGregor, J. A., Ross, N., Young, D. A., Ashmore, D. W., Born, A., Chu, W., Drews, R., Franke, S., Goel, V., Goodge, J. W., Henry, A. C. J., Hermant, A., **Hills, B. H.,** Holschuh, N., Koutnik, M. R., Vieli, G. J.-M. L., MacKie, E. J., Mantelli, E., Martín, C., Ng, F. S. L., Oraschewski, F. M., Napoleoni, F., Parrenin, F., Popov, S. V., Rieckh, T., Schlegel, R., Schroeder, D. M., Siegert, M. J. Teisberg, T. O., Winter, K., Cui, X., Tang, X., Yan, S., Davis, H., Dow, C. F., Fudge, T. J., Jordan, T. A., Kulessa, B., Matsuoka, K., Nyqvist, C. J., Rahnemoonfar, M., Siegfried, M. R., Singh, S., Višnjević, V., Zamora, R., Zuhr, A. Antarctica's internal architecture: Towards a radiostratigraphically-informed age-depth model of the Antarctic ice sheets. *The Cryosphere*.

Pritchard, H. D., Fretwell, P. T., Fremand, A. C., Bodart, J. A., Kirkham, J. D., Aitken A., Bamber, J., Bell, R., Bianchi, C., Bingham, R. G., Blankenship, D. D., Casassa, G., Christianson, K., Conway, H., Corr, H. F. J., Cui, X., Damaske, D., Damm, V., Dorschel, B., Drews, R., Eagles, G., Eisen, O., Eisermann H., Ferraccioli, F., Field, E., Forsberg, R., Franke, S., Goel, V., Gogineni, S. P., Greenbaum, J., **Hills, B. H.,** Hindmarsh, R. C. A., Hoffman, A. O., Holschuh, N., Holt, J. W., Humbert, A., Jacobel, R. W., Jansen, D., Jenkins, A., Jokat, W., Jong, L., Jordan, T. A., King, E. C., Kohler, J., Krabill, W., Maton, J., Kusk-Gillespie, M., Langley, K., Lee, J., Leitchenkov, G., Leuschen, C., Luyendyk, B., MacGregor, J. A., MacKie, E., Moholdt, G., Matsuoka, K., Morlighem, M., Mouginot, J., Nitsche, F. O., Nost, O. A., Paden, J., Pattyn, F., Popov, S., Rignot, E., Rippin, D. M., Rivera, A., Roberts, J. L., Ross, N., Ruppel, A., Schroeder, D. M., Siegert, J. J., Smith, A. M., Steinhage, D., Studenger, M., Sun, B., Tabacco, I., Tinto, K. J., Urbini, S., Vaughan, D. G., Wilson, D. S., Young, D. A., Zirizzotti, A. Bedmap3 updated ice bed, surface and thickness gridded datasets for Antarctica. *Nature Scientific Data*. https://doi.org/10.1038/s41597-025-04672-y.

2024

Hills, B. H., Siegfried, M. S., Schroeder D. M. Entrained water in basal ice suppresses bed-echo power at active subglacial lakes. *Geophysical Research Letters*. https://doi.org/10.1029/2024GL109248

Fudge, T. J., Suavage, R., Vu, L., **Hills, B. H.**, Severi, M., Waddington, E. D., Effective diffusivity of sulfuric acid in Antarctic ice cores. *Climate of the Past*. https://doi.org/10.5194/cp-20-297-2024

2023

Hills, B. H., Christianson K., Jacobel, R. W., Petersson, R. Radar attenuation demonstrates advective cooling at the Siple Coast ice streams. *Journal of Glaciology*. 69(275). 566-576. doi:10.1017/jog.2022.86

Hoffman, A. O., Holschuh, N., Mueller, M., Paden, J., Muto, A., Ariho, G., Brigham, C., Christian, J., Davidge, L., Heitmann, E., **Hills B. H.,** Horlings, A. N., Morey, S., O'Connor, G. K., Fudge, T. J., Steig, E. J., Christianson, K.. Scars of tectonism promote ice-sheet nucleation from Hercules Dome into West Antarctica. *Nature Geoscience*. https://doi.org/10.1038/s41561-023-01265-5

Løkkegaard, A., Mankoff, K. D., Zdanowicz, C., Clow, G. D., Lüthi, M. P., Doyle, S. H., Thomsen, H. H., Fisher, D., Harper, J., Aschwanden, A., Vinther, B. M., Dahl-Jensen, D., Zekollari, H., Meierbachtol, T., McDowell, I., Humphrey, N., Solgaard, A., Karlsson, N. B., Khan, S. A., **Hills, B. H.,** Law, R., Hubbard, B., Christoffersen, P., Jacquemart, M., Seguinot, J., Fausto, R. S., Colgan, W. T. Greenland and Canadian Arctic ice temperature profiles. *The Cryosphere*. 17(9). https://doi.org/10.5194/tc-17-3829-2023

Frémand, A. C., Fretwell, P., Bodart, J. A., Pritchard, H. D., Aitken, A., Bamber, J. L., Bell, R., Bianchi, C., Bingham, R. G., Blankenship, D. D., Casassa, G., Catania, G., Christianson, K., Conway, H., Corr, H. F. J., Cui, X., Damaske, D., Damm, V., Drews, R., Eagles, G., Eisen, O., Eisermann, H., Ferraccioli, F., Field, E., Forsberg, R., Franke S., Fujita, S., Gim, Y., Goel, V., Gogineni, S. P., Greenbaum, J., **Hills, B. H.,** Hindmarsh, R. C. A., Hoffman, A. O., Holmlund, P., Holschuh, N., Holt, J. W., Horlings A. N., Humbert, A., Jacobel, R. W., Jansen, D., Jenkins, A., Jokat, W., Jordan, T., King, E., Kohler, J., Krabill, W., Gillespie, M. K., Langley, K., Lee, J., Leitchenkov, G., Leuschen, C., Luyendyk, B., MacGregor, J., MacKie, E., Matsuoka, K., Morlighem, M., Mouginot, J., Nitsche, F. O., Nogi, Y., Nost, O. A., Paden, J., Pattyn, F., Popov, S. V., Rignot, E., Rippin, D. M., Rivera, A., Roberts, J., Ross, N., Ruppel, A., Schroeder, D. M., Siegert, M. J., Smith, A. M., Steinhage, D., Studinger, M., Sun, B., Tabacco, I., Tinto, K., Urbini, S., Vaughan, D., Welch, B. C., Wilson, D. S., Young, D. A., and Zirizzotti, A.. Antarctic Bedmap data: FAIR sharing of 60 years of ice bed, surface and thickness data. *Earth System Science Data*. 15, 2695-2710. https://doi.org/10.5194/essd-15-2695-2023

2022

Fudge, T. J., **Hills, B. H.**, Horlings, A. N., Holschuh, N., O'Connor, G. K., Christian, J., Davidge, L., Hoffman, A. O., Christianson, K., Steig, E. J. A site for deep ice coring at West Hercules Dome: results from ground-based geophysics and modeling. *Journal of Glaciology,* 1-13. doi:10.1017/jog.2022.80

Hills, B. H., Christianson K., Hoffman A., Fudge, T. J., Holschuh N, Kahle, E. C., Conway, H., Christian, J., Horlings, A., O'Connor, G., Steig, E. J. Geophysics and Thermodynamics at South Pole Lake indicate stability and a regionally thawed bed. *Geophysical Research Letters,* 49. doi:10.1029/2021GL096218

2021

Hills, B. H., Winebrenner, D. P., Elam, W. T., & Kintner, P. M. S. Avoiding slush formation for hot-point drilling of glacier boreholes. *Annals of Glaciology, 62*(84). 166-170. doi:10.1017/aog.2020.70

2020

Lilien, D. A., **Hills, B. H.**, Driscol, J., Jacobel, R. W., & Christianson, K., ImpDAR: An open-source impulse radar processor. *Annals of Glaciology,* 61(81), 114-123. doi:10.1017/aog.2020.44

Hills, B. H., Christianson K., & Holschuh N. A framework for attenuation method selection evaluated with ice-penetrating radar data at South Pole Lake. *Annals of Glaciology*, *61*(81), 176-187. doi:10.1017/aog.2020.32

2018

Hills, B. H., Harper J. T., Meierbachtol T. W., Johnson J. V., Humphrey N. F., & Wright P. J. Processes influencing heat transfer in the near-surface ice of Greenland's ablation zone. *The Cryosphere*, 12, 3215–3227. doi:10.5194/tc-12-3215-2018.

2017

Hills, B. H., Harper J. T., Humphrey N. F. & Meierbachtol T. W. Measured horizontal temperature gradients constrain heat transfer mechanisms in Greenland ice. *Geophysical Research Letters*, 44, 9778–9785. doi:10.1002/2017GL074917

EXTENDED ABSTRACTS AND CONFERENCE PROCEEDINGS (*STUDENT COAUTHOR)

2025

Hills, B. H., Siegfried, M. R., Young, D. A., Paden J. D., Singh, S., Blankenship D. D., Schroeder D. M. A birefringence correction for multi-frequency radar sounding. *International Geosciences and Remote Sensing Symposium*.

Bradford, J. H., **Hills, B. H.**, Michaelides, R., Siegfried, M., Follingstad, V., Hughson, K. A GPR Survey of Arctic Pingos. *International Workshop on Advanced Ground Penetrating Radar*.

*Kubas, A. R., **Hills, B. H.**, *Sintayehu, J., Hughson, K., Routt, A., Noh, K., Bradford, J. H., Siegfried, M. R., Sizemore, H. G., Follingstad, V., Swidinsky, A., Mullen, A., Lein, D., Quartini, E., Michaelides, R. J., Schmidt, B. E. From pingos to planets: Geophysical constraints on the interior structure of Ibyuk Pingo with applications to planetary hydrology. *Lunar and planetary sciences conference.*

2024 *Li, A. Y., **Hills, B. H.**, Rutledge, A. M., Bennet, K. A., Koeppel, A., Edwards, C. S., Lally, A., Edgar, L. A., Koutnik, M. R., Henderson, M., Jones, N., Rampe, E. B., Eifert, H. A. Ground-Penetrating Radar Investigations of Terrestiral Analogs for Mars: Eskers at Breiðamerkurjökull, Iceland. *Mars Polar Science.*

2022 Walcott, C., Erwin, E., **Hills, B. H.** Ice flow and ice-bed interactions: How they shape our understanding of ice cores. *Past Global Changes,* 30(2). 114-115. doi:10.22498/pages.30.2.114

INVITED PRESENTATIONS

2024 **Hills, B. H.** Disentangling ice dynamic processes with radio-echo sounding from the local to the ice-sheet scale. *Geophysics Department Colloquium, Stanford*, May 2024, Palo Alto, CA, USA

2024 **Hills, B. H.** Pingitude, Pingosity, Pingance: Assessing the geophysical pingoness of pingos in the Canadian Arctic. *University of Washington Glaciology Lunch,* April 2024, Seattle, WA

2017 **Hills, B. H.** In situ measurements and modeling used to constrain heat transfer in the western Greenland Ice Sheet. *University of Washington Glaciology Lunch,* November 2017, Seattle, WA

2017 **Hills, B. H.** In situ measurements and modeling used to constrain heat transfer in the western Greenland Ice Sheet. *Los Alamos National Lab,* July 2017, Los Alamos, NM

CONFERENCE ABSTRACTS (*STUDENT COAUTHOR)

2025 *Ozerov, A., **Hills, B. H.**, Perez, F. A New Method to Statistically Combine Ice Sheet Mass Balance Estimates. *American Geophysical Union Fall Meeting*, December 2025, New Orleans, LA, USA

2024 **Hills, B. H.**, Siegfried, M. R., Verboncoeur, H., Mantelli, E., Holschuh, N., Castelletti, D., Paden, J., Schoeder, D. Refocusing on radio stratigraphy: Large-scale re-processing of radio-echo sounding data to illuminate englacial layers. *American Geophysical Union Fall Meeting*, December 2024, District of Columbia, USA

*Sintayehu, J., **Hills, B. H.**, Siegfried, M. R., Bradford, J., Kubas, A., Lein, D. J., Mullen, A., Noh, K., Routt, A., Sizemore, A., Hughson, K. H. G., Schmidt, B. Three-Dimensional Subsurface Structure of Canada's Largest Pingo, Ibyuk. *American Geophysical Union Fall Meeting*, December 2024, District of Columbia, USA

*Verboncoeur, H., **Hills, B. H.**, Siegfried, M. R., Holschuh, N., Tarzona, A., Tran, K., Schroeder, D. M., Chu, W. Internal and basal processes driving multi-decadal stress-balance changes in the Crary Ice Rise region, West Antarctica.

American Geophysical Union Fall Meeting, December 2024, District of Columbia, USA

*Skelton, E., Campbell, S., Orachewski, F., Hawkins, J., Martin, C., **Hills, B. H.**, Bellamy, K., Kindstedt, I., Kreutz, K., Winski, D. Disentangling the ice flow deformation history and cause of the radio echo free zone to better understand the Holocene ice core climate record from Begguya, Denali National Park, Alaska. *American Geophysical Union Fall Meeting*, December 2024, District of Columbia, USA

*Routt, A., Hughson, K. H. G., **Hills, B. H.,** Bradford, J., Siegfried, M. R., Sintayehu, J., Kubas, A., Lein, D., Mullen, A., Schmidt, B., Sizemore, H., Swidinsky, A., Noh, K. Salty Pingos: Pingo Subsurface Structures Revealed by Ground Penetrating Radar and Electrical Methods. *American Geophysical Union Fall Meeting*, December 2024, District of Columbia, USA

*Sintayehu, J., **Hills, B. H.**, Siegfried, M. R., Bradford, J., Kubas, A., Lein, D. J., Mullen, A., Noh, K., Routt, A., Sizemore, A., Hughson, K. H. G., Schmidt, B. Three-Dimensional Subsurface Structure of Canada's Largest Pingo, Ibyuk. *National Society of Black Physicists*, November 2024, Houston, TX, USA

Hills, B. H., Siegfried, M. S., Schroeder D. M. Entrained water in basal ice suppresses bed-echo power at active subglacial lakes. *Scientific Committee on Antarctic Research,* August 2024, Pucon, Chile (oral presentation)

2023

Hills, B. H. Holschuh, N., Hoffman, A. O., Fudge, T. J., Horlings, A. N., Erwin, E., Steig, E. J., Christianson, K. Radar-Derived Crystal Orientation Fabric Suggests Divide Stability at Hercules Dome During the Last Ice-Sheet Deglaciation. *American Geophysical Union Fall Meeting*, December 2023, San Francisco, CA. (poster)

*Li, A., **Hills, B. H.**, Hepburn, A., Koutnik, M., Hubbard, B. P., Williams, J. P., Soare, R. J., Garvin, J. B., Gallagher, C. J. Radar investigations of coastal ice exposures in the Canadian Arctic as analogs to ice-exposing scarps in the mid-latitudes of Mars. *American Geophysical Union Fall Meeting*, December 2023, San Francisco, CA. (poster)

*Shaya, M., Horlings, A. N., **Hills, B. H.**, Manos, J. M., Conway, H., Fegyveresi, J. M., Koutnik, M., Fudge, T. J. Interpreting Ice Flow at the Allan Hills, Antarctica Using Polarimetric Radar Measurements of Ice Fabric. *American Geophysical Union Fall Meeting*, December 2023, San Francisco, CA. (eLightning presentation)

Hills, B. H., Mantelli, E., Holschuh, N., Schroeder, D., Perez, F., Siegfried, M. Disentangling Basal from Internal Friction with Radiostratigraphy. *Northwest Glaciologists Meeting*, October 2023, Seattle, WA. (oral presentation)

Hills, B. H. Holschuh, N., Hoffman, A. O., Fudge, T. J., Horlings, A. N., Erwin, E., Steig, E. J., Christianson, K. Radar-derived crystal orientation fabric suggests divide stability at Hercules Dome during the last ice-sheet deglaciation. *WAIS Workshop*, October 2023, Cloquet, MN. (oral presentation)

Reusch, D., Steig, E., Fudge, T. J., **Hills, B. H.**, Horlings, A. N., Holschuh, N., Christian, J. E., Davidge, L., Hoffman, A. O., O'Connor, G., Christianson, K., Kirkpatrick, L., Erwin, E.. Characterizing precipitation and accumulation variability at Hercules dome, Antarctica. *General Assembly of the International*

Union of Geodesy and Geophysics, July 2023, Berlin, Germany. (oral presentation).

Hills, B. H., Fudge, T. J., Holschuh, N., Erwin, E., Kirkpatrick, L., Steig, E. J., Christianson, K. Radar-inferred crystal fabric at Hercules Dome supports divide stability since the last glacial maximum. *U.S. Open Ice Core Meeting*, May 2023, Seattle, WA. (oral presentation)

Horlings, A. N., Davidge, L., Erwin, E., **Hills, B. H.**, Hoffman, A., Holschuh, N., Reusch, D., Kirkpatrick, L., Fudge, T. J., Steig, E. J., Christianson, K. Snow accumulation at Hercules Dome, Antarctica during the last 420 years. *U.S. Open Ice Core Meeting*, May 2023, Seattle, WA. (oral presentation)

2022

Hills, B. H., Christianson K., Jacobel, R. W., Petersson, R. Radar attenuation demonstrates advective cooling at the Siple Coast ice streams. *WAIS Workshop*, September 2022, Estes Park, CO. (poster)

2021

*Sauvage, R., Fudge, T. J., **Hills, B. H.**, Linh Vu. Effective Diffusivity of Sulfate Ions in the EPICA Dome C Ice Core for the Last Five Interglacials. *American Geophysical Union Fall Meeting*, December 2021, New Orleans, LA. (poster)

Fudge, T. J., Holschuh, N., **Hills, B. H.**, O'Connor, G. K., Lomeli, J., Steig, E. J. Combining evidence of frozen and thawed beds to constrain geothermal flux: initial results from Hercules Dome, Antarctica. *American Geophysical Union Fall Meeting*, December 2021, New Orleans, LA. (poster)

Hills, B. H., Young, T. J., Horlings, A. N., Holschuh, N., Christianson, K. Radar polarimetry at Hercules Dome reveals ice fabric as it changes along the triple divide. *WAIS Workshop*, September 2021, Algonkian Regional Park, VA (oral presentation)

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