BENJAMIN KEISLING

Postdoctoral Research Scientist Lamont-Doherty Earth Observatory <u>keisling@ldeo.columbia.edu</u> Google Scholar profile (503) 997-1899 Oceanography 109A 61 Route 9W, Palisades, NY 10964 ORCID: 0000-0002-2182-2025

APPOINTMENTS

Postdoctoral Fellow, Lamont-Doherty Earth Observatory, Columbia University 2020-

EDUCATION

PhD	University of Massachusetts Amherst, Geosciences	02/2020
MSc	University of Massachusetts Amherst, Geosciences	05/2015
BA	Saint Olaf College, Physics	05/2013

HONORS AND AWARDS

Earth Institute Internship Program (funded 1 intern)	2020
UMass CNS Excellence in Diversity & Inclusion Award	2020
Lamont-Doherty Postdoctoral Fellowship	2020–2022
IODP Post Expedition Award	2018
UMass Professional Development Grant	2018
NSF IGS Travel Scholarship	2018
UMass Campus Climate Improvement Grant	2018
PAGES Young Scientist Meeting Poster Prize	2017
NSF GROW Fellowship	2016–2017
Geological Society of America Graduate Student Research Grant	2015
NSF Graduate Research Fellowship	2014–2019
UMass Geosciences Hartshorn Award	2014, 2015, 2016, 2018
Barry M. Goldwater Scholarship	2012

GRANTS

Principal Investigator

Co-PI, "Alliance-Building Offshore to Achieve Resilience and Diversity (All-ABOARD)," NSF GOLD-EN. Co-PIs: R. Bryant, S. Cooper. **\$299,781**

[x] Co-I, "Bridging past, present and future controls on NE Greenland ice flow: using basal constraints and ice dynamics from Operation IceBridge data, satellite altimetry, and ice sheet modelling," submitted to NASA July 2020. Co-PIs: G. Paxman, R.Bell, B. Csatho, K. Tinto

Named Contributor

NSF "Collaborative Research: GreenDrill: The response of the northern Greenland Ice Sheet to Arctic Warmth - Direct constrains from sub-ice bedrock." PI: Joerg Schaefer. *Funded*, 2020.

PNRA (Progetto di Ricerca Nazionale in Antartide) "ANTIPODE, Onset of the Antarctic ice sheet vulnerability to ocean conditions." PI: Florence Colleoni. *Funded*, 2020.

Mardsen Grant (NZ): "Ross Sea climate evolution during the Neogene." PI: Rob McKay. *Funded*, 2018.

NSF "Collaborative Research: Sensitivity of the West Antarctic Ice Sheet to 2 Degree Celsius (SWAIS 2°C) PI: Molly Patterson. *Pending*.

NERC "GEO-ICE: Benchmark GEOlogical Records for the Response of the West Antarctic ICE Sheet to near Future Temperatures" PI: Tina van de Flierdt & Ed Gasson. *Not funded* 2019, 2020.

PUBLICATIONS

Peer-reviewed

- [10] Keisling, B.A., Bryant, R.M., Golden, N.A., Stevens, L., Alexander, E., 2020b. Does Our Vision of Diversity Reduce Harm and Promote Justice? GSA Today 30. https://doi.org/10.1130/GSATG429GW.1.
- [9] Gasson, E., *Keisling, B.A.*, 2020. The Antarctic Ice Sheet: A Paleoclimate Modeling Perspective. Oceanography 33. https://doi.org/10.5670/oceanog.2020.208
- [8] *Keisling, B.A.*, Nielsen, L.T., Hvidberg, C.S., Nuterman, R., DeConto, R.M., 2020a. Pliocene—Pleistocene megafloods as a mechanism for Greenlandic megacanyon formation. Geology 48 (7), 737-741. https://doi.org/10.1130/G47253.1
- [7] Miller, D.R., Habicht, M.H., *Keisling, B.A.*, Castañeda, I.S., Bradley, R.S., 2018. A 900-year New England temperature reconstruction from in situ seasonally produced branched glycerol dialkyl glycerol tetraethers (brGDGTs). Climate of the Past 14, 1653–1667. https://doi.org/10.5194/cp-14-1653-2018
- [6] Buizert, C., *Keisling, B.A.*, Box, J.E., He, F., Carlson, A.E., Sinclair, G., DeConto, R.M., 2018. Greenland-Wide Seasonal Temperatures During the Last Deglaciation. Geophysical Research Letters 45, 1905–1914. https://doi.org/10.1002/2017GL075601

- [5] *Keisling, B.A.*, Castañeda, I.S., Brigham-Grette, J., 2017. Hydrological and temperature change in Arctic Siberia during the intensification of Northern Hemisphere Glaciation. Earth and Planetary Science Letters 457, 136–148. https://doi.org/10.1016/j.epsl.2016.09.058
- [4] Vallelonga, P., Christianson, K., Alley, R.B., Anandakrishnan, S., Christian, J.E.M., Dahl-Jensen, D., Gkinis, V., Holme, C., Jacobel, R.W., Karlsson, N.B., *Keisling, B.A.*, Kipfstuhl, S., Kjær, H.A., Kristensen, M.E.L., Muto, A., Peters, L.E., Popp, T., Riverman, K.L., Svensson, A.M., Tibuleac, C., Vinther, B.M., Weng, Y., Winstrup, M., 2014. Initial results from geophysical surveys and shallow coring of the Northeast Greenland Ice Stream (NEGIS). The Cryosphere 8, 1275–1287. https://doi.org/10.5194/tc-8-1275-2014
- [3] *Keisling, B.A.*, Christianson, K., Alley, R.B., Peters, L.E., Christian, J.E.M., Anandakrishnan, S., Riverman, K.L., Muto, A., Jacobel, R.W., 2014. Basal conditions and ice dynamics inferred from radar-derived internal stratigraphy of the northeast Greenland ice stream. Annals of Glaciology 55, 127–137. https://doi.org/10.3189/2014AoG67A090
- [2] Christianson, K., Peters, L.E., Alley, R.B., Anandakrishnan, S., Jacobel, R.W., Riverman, K.L., Muto, A., *Keisling, B.A.*, 2014. Dilatant till facilitates ice-stream flow in northeast Greenland. Earth and Planetary Science Letters 401, 57–69. https://doi.org/10.1016/j.epsl.2014.05.060
- [1] Christianson, K., Parizek, B.R., Alley, R.B., Horgan, H.J., Jacobel, R.W., Anandakrishnan, S., *Keisling, B.A.*, Craig, B.D., Muto, A., 2013. Ice sheet grounding zone stabilization due to till compaction. Geophysical Research Letters 40, 5406–5411. https://doi.org/10.1002/2013GL057447

Pending

- [x] Keisling, B.A., et al. "Forum Reply: Pliocene-Pleistocene megafloods as a mechanism for Greenlandic megacanyon formation. *Accepted*.
- [x] Ali, H., et al. "A twenty-point action plan for anti-racism in 2020." Submitted.

Other Publications

- [4] Cooperdock, E.H.G., Labidi, J., Dottin III, J.W., *Keisling, B.A.*, 2020. Black Lives Matter: Promoting Diversity, Equity and Inclusion in Geochemistry. Elements 16, 226–227. https://doi.org/10.2138/gselements.16.4.226
- [3] *Keisling, B.*, R. Bryant, N. Fernandez, M. G. Arredondo, N. Golden, 2020. What's in a seminar?, Eos, 101, https://doi.org/10.1029/2020EO142460.
- [2] McKay, R.M., Santis, L.D., Kulhanek, D.K., et al. 2018. International Ocean Discovery Program Expedition 374 Preliminary Report 63. https://doi.org/10.14379/iodp.pr.374.2018

[1] McKay, R.M., Santis, L.D., Kulhanek, D.K., Ash, J.L., Beny, F., Browne, I.M., Cortese, G., Harwood, D.M., Ishino, S., *Keisling, B.A.*, Kim, S., Kim, S., Laberg, J.S., Leckie, R.M., Müller, J., Patterson, M.O., Romans, B.W., Romero, O.E., Sangiorgi, F., Seki, O., Shevenell, A.E., Singh, S.M., Sugisaki, S.T., van de Flierdt, T., van Peer, T.E., Xiao, W., Xiong, Z., 2019. Expedition 374 summary 374, 41. https://doi.org/10.14379/iodp.374.101.2019

MEDIA COVERAGE/INTERVIEWS

Featured in: Guitard, M., 2020, Amplified voices: How identity shapes our scientific experience. Geoscientist 30 (1), 10-15, https://doi.org/10.1144/geosci2020-065

Featured in: Kroik, J., (2020) "As the world turns." The New Yorker. https://www.newyorker.com/culture/culture-desk/as-the-world-turns

Featured in: Howley, K. D. R., 2019, The layered legacy of Clyde Wahrhaftig, Eos, 100, https://doi.org/10.1029/2019EO136549. Published on 06 December 2019.

Interviewed in: "Greenland has a grand canyon beneath its ice, carved by ancient floods." https://www.atlasobscura.com/articles/greenland-ancient-grand-canyon

Interviewed in: "How glacier-fueled floods gouged out Greenland's hidden canyons." https://abcnews.go.com/Technology/glacier-fueled-floods-gouged-greenlands-hidden-canyons/story?id=70712099

BRiDGE featured in: "US geoscience programmes drop controversial admissions test," https://www.nature.com/articles/d41586-020-02181-z

TEACHING AND MENTORING

Research Mentor for Columbia Undergraduate student, Fall 2020. Project title: *Advancing Diversity and Inclusion at Lamont-Doherty Earth Observatory and in Geoscience*.

Research Mentor for Columbia Undergraduate student, Spring 2020. Project title: Calculating bed roughness from satellite imagery in West Greenland.

Co-authored three undergraduate student abstracts for AGU 2019 led by STEMSEAS students.

Near-peer mentor, STEMSEAS, 10 days aboard R/V *Sikuliaq* during transit from San Diego, CA to Seward, AK. Supervised 14 undergraduate students, May 2019.

Instructor of Record, CNS 191, "Adapting to a Dynamic Environment" (2 sections). UMass Amherst. 2015. Student feedback available upon request.

INVITED SEMINARS

Invited Talk, AGU Fall Meeting 2019, session: C51A 12/2019
UTIG Seminar, Austin, TX, host: Sean Gulick 11/2019
USF CMS Seminar, St. Petersburg, FL, host: I. Browne & A. Shevenell 10/2019
Department of Geology , James Madison University, host: K. St. John 02/2019
MG&G Seminar, LDEO, Palisades, NY, host: Laura Stevens 11/2018
Geological Sciences Seminar , Binghampton University, NY host: M. Patterson 09/2018
MagellanPlus Workshop, Copenhagen, DK, host: Paul Knutz 09/2018
BISEPPS Seminar , Harvard University, MA, host: Tamara Pico 04/2018
Antarctic Research Center, Wellington, NZ, host: Robert McKay 03/2018
Climate & Environment Lecture, Brown University, RI, host: Rachel Lupien 10/2017
International Quaternary Webinar, UMass Amherst, MA, host: Ray Bradley 09/2017
Center for Ice and Climate, U. Copenhagen, DK, host: Emilie Capron 04/2017
University of Aarhus, Aarhus, DK, host: Nicolaj Larsen 03/2017
Natural History Museum, Copenhagen, DK, host: Kristian Kjeldsen 02/2017

PROFESSIONAL ORGANIZATIONS

American Geophysical Union (AGU), Geological Society of America (GSA), National Organization of Gay and Lesbian Scientists and Technical Professionals (NOGLSTP)

JUSTICE, EQUITY, DIVERSITY AND INCLUSION

Chair*, Lamont Diversity, Equity & Inclusion (LDEI) Task Force *co-chairs: Kailani Acosta, Gisela Winckler		2020–			
Member, AGU Diversity and Inclusion Advisory Committee		2019–202			
gAyGU Coordinator and Organizer, AGU/NOGLSTP Member, Bromery Committee, UMass Amherst Geosciences Founding Coordinator, BRiDGE at UMass Amherst					
			Coordinator, Guest Lecture Series, UMass Amherst Geosciences		2017–2018
			Invited Panelist		
Black Lives Matter Town Hall, Geochemical Society		2020			
Diversity and Inclusion in Earth and Space Sciences	AGU	2019			
Conference Sessions Convened/Organized					
P4 The Next Generation of Geoscience Leaders	GSA	2020			
ED052 The Next Generation of Geoscience Leaders	AGU	2019			
TH 100 Years of LGBTQ+ Geoscientists	AGU	2019			
U23 Towards a Century of DEI in the Geosciences	AGU	2019			
ED12 Aiming for Diversity to Strengthen the Geoscience Community	AGU	2018			

"Written in ice and mud," Milsteen Science Series, AMNH, New York	02/2020
"Animating Ice Sheets," public lecture, Burlington, VT.	10/2019
Volunteer, Eureka!, UMass Amherst	2015-2019
STEM Ambassadors Training Program Team Coach, UMass Amherst	2014-2016
Lake El'gygytgyn Summer Teacher Training Program, UMass Amherst	2013-2015

Conference Sessions Convened/Organized

PP43 Climate Reconstructions from the Mesozoic & Cenozoic AGU 2018

Reviewer

Journal of Limnology (1), Climate of the Past (1)

PRESENTATIONS

24, first-author only:

International Meetings (e.g. EGU) **8** (3 oral, 5 poster)
National Meetings (e.g. AGU, GSA) **10** (7 oral, 3 poster)
Regional Meetings (e.g. NEGSA, small workshops) **6** (3 oral, 3 poster)
*full bibliography available upon request