THE UNIVERSITY OF ARIZONA

Dr. Marcus Lofverstrom
Department of Geosciences
1040 E. 4th Street
Tucson, Arizona 85721

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http://lofverstrom.github.io

Chronology of Education

2009 – 2014	**Doctor of Philosophy in Atmospheric Sciences and Oceanography**, (Awarded 11/2014). Stockholm University *(Stockholm, Sweden) Advisors*: Rodrigo Caballero & Johan Nilsson; *Dissertation:* On the interactions between ice sheets and the large-scale atmospheric circulation over the last glacial cycle
2005 – 2009	**Master of Science in Meteorology** (Awarded 06/2009). Stockholm University *(Stockholm, Sweden) Advisor:* Jonas Nycander; *Thesis:* Barotropic instability of eastward flow

Chronology of Employment

2021 – present	**Joint Assistant Professor**, Department of Hydrology and Atmospheric Sciences, University of Arizona (*Tucson, AZ, USA*)
2018 – present	**Assistant Professor**, Department of Geosciences, University of Arizona (*Tucson, AZ, USA*)
2017 – 2018	**Adjunct Assistant Professor**, Department of Earth & Environment, Boston University (*Boston, MA, USA*)
2015 – 2018	**Postdoctoral Fellow**, National Center for Atmospheric Research *(Boulder, CO, USA)*
2015	**Postdoctoral Fellow**, Stockholm University *(Stockholm, Sweden)*

Honors and Awards

2022	Bjerknes Visiting Fellow (University of Bergen), May-June 2022
2021	Outstanding Faculty Award, Geosciences Advisory Board (U. Arizona)
2021*	Bjerknes Visiting Fellow (University of Bergen – postponed due to COVID-19)
2019	International Meteorological Institute, visiting researcher (Stockholm University)
2016	International Meteorological Institute, visiting researcher (Stockholm University)
2014	Bolin Center for Climate Research travel grant (Stockholm University)
2012	Wallenberg donation stipend
2011	Bolin Center for Climate Research travel grant (Stockholm University)
2010	Helge Ax:son Johnson donation stipend

Student Awards

2025	Asiya Badarunnisa, Best graduate poster, GeoDaze
2025	Kay Poonawala, Best undergraduate presentation, GeoDaze
2025	Kay Poonawala, Excellence in Undergraduate Research Award (University of Arizona, Department of Geosciences)
2025	Kay Poonawala, Best undergraduate poster, AMS
2024	Kay Poonawala, Best undergraduate poster, GeoDaze
2024	Gigi Giralte, Outstanding undergraduate poster, El Dia

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2023	Kay Poonawala, Runner-up best undergraduate poster, GeoDaze
2023	Holly Thomas, Best overall talk, GeoDaze

Service / Outreach

Doctoral and Masters Exam Committees (* Primary advisor, † Co-advisor, ‡ Committee member):

Joaris Del Mar Morales-Hernandes‡, MS, University of Arizona	2025-present
Amanda Manoogian‡, MS, University of Arizona	2025-present
Leila Fischer‡, MS, University of Arizona	2025-present
Tran Trang‡, PhD, University of Arizona	2025-present
Maya Tessler‡, PhD, University of Arizona	2024-present
Charles Hoopes‡, PhD, University of Arizona	2024-present
Holly Thomas*, PhD, University of Arizona	2023-present
Asiya Badarunnisa Sainudeen*, PhD, University of Arizona	2021-present
Mudith Weerabaddana‡, PhD, University of Arizona	2021-present
Hope Simonoko*, MS, University of Arizona	2022-2023
Holly Thomas*, MS, University of Arizona	2021-2023
Dr. Alice Chapman‡, PhD, University of Arizona	2021-2023
Allison Berry*, MS, University of Arizona	2020-2022
Dr. Dervla Meegan Kumar‡, PhD, University of Arizona	2019-2022
Dr. Jonathan King‡, PhD, University of Arizona	2019-2022
Dr. Emma Reed‡, PhD, University of Arizona	2021

Bachelor Students (* Primary advisor, † Co-advisor):

Benjamin Bucey*, BS student, University of Arizona (honors college)	2024-present
Kay Ateka Poonawala*, BS student, University of Arizona (honors college)	2022-present
Vicente Lopes Jr.*, BS student, University of Arizona	2024
Gigi Giralte*, BS student, University of Arizona	2022-2024
Michelle Uddin*, BS student, University of Arizona	2023
Brenna Freeman*, BS student, University of Arizona	2021-2022
Tyrel Malmgren*, BS student, University of Arizona	2021-2022

Other mentoring (* Primary advisor, † Co-advisor):

Anjelina Laferriere*, Core-to-clouds REU, University of Arizona	2024
Dr. Madelene Cook†, Postdoctoral Fellow, University of Arizona	2023-2024
Faulty mentor Epsilon Eta*, University of Arizona	2022-2023
Dr. Malin Odalen*, Postdoctoral Fellow, University of Arizona	2020
Liling Chang*, PhD student, University of Arizona (*Women in STEM* mentoring program)	2020-2021
Dr. Aleah Sommers, Postdoctoral Fellow, National Center for Atmospheric Research (modeling and data analysis support)	2019-2021

Departmental Committees:

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New climate science BA/BS	2024-2025
Graduate Policy Committee	2023-2025
Undergraduate Advisory and Policy Committee	2021-2024
Graduate Admissions Committee	2021/23/25
Annual Performance Evaluation Committee	2020-2022
Arizona Computational Geosciences Center	2018/19/20
Geodaze judge, outstanding climate presentation	2019-2023
Geodaze judge, climate posters	2021
IT Search Committee	2018/2022

University Committees:

Research Computing Governance Committee, High-Performance Computing (RCGC HPC) Refresh Committee	2019

Other Committees:

Core member of *Land Ice Working Group* (LIWG) at the *National Center for Atmospheric Research* (NCAR)	2015-present

Referee:

Journal of Climate; Climate Dynamics; Geophysical Research Letters; Climate of the Past; Earth and Planetary Science Letters; Quaternary Science Reviews; Scientific Reports; Nature Geoscience; Nature Communications; Nature Earth and Environment; Geology; The Cryosphere; Cambridge University Press; European Research Council, National Science Foundation

Teaching

2025 GEOS 596H-001: Python Seminar (spring)
GEOS 285: Introduction to Python in Geosciences (spring)
2024 GEOS 342: The History of Earth's Climate (fall)
2023 GEOS 437/537: Introduction to Earth-system modeling (fall)
GEOS 285: Introduction to Python in Geosciences (spring)
2022 GEOS 596H-003: Python Workshop (fall)
GEOS 342: The History of Earth's Climate (fall)
GEOS 285: Introduction to Python in Geosciences (spring)
2021 GEOS 437/537: Introduction to Earth-system modeling (fall)
GEOS 342: The History of Earth's Climate (fall)
GEOS 280: Programming and Data Analysis in the Earth Sciences (spring)
2020 GEOS 596H-001: Numerical Modeling Workshop (fall)
GEOS 596H-002: Climate Model-Paleoclimate "Proxy" Synthesis: the good, the bad, and the ugly (fall)
GEOS 596E-001: Department of Geosciences Extended Colloquium Discussion (fall)
GEOS 170A1: Earth from birth the death (spring)
2019 GEOS 437/537: Introduction to Earth-system modeling (fall)
GEOS 596H-003: Atmosphere and ocean circulation through time (spring)

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2018 Computing Fridays (fall)

Guest lecturer:
- GEOS 502: Analytical and Numerical Modeling in Geosciences, U. Arizona, 2019 (1 class)
- ATOC-5050: Introduction to Atmospheric Dynamics, CU Boulder, 2017 (4 classes)

Summer schools and workshops:
- Community Earth System Model (CESM) tutorial, NCAR, Boulder, CO, 2015-2018
- Modeling and project work support at the International Arctic Research Center (IARC) summer school, Fairbanks, AK, 2011

Attended teaching and science communication courses:
- Effectively Communicating Science Annual Workshop, NSF Expert Witness Training Academy, Mitchell Hamline School of Law, St. Paul, MN, 2017
- University Pedagogy 1, Stockholm University, Stockholm, Sweden, 2012

Publications / Creative Activity

Peer-reviewed Manuscripts § Post-doctoral researcher advisee, † Graduate student advisee, ‡ Undergraduate Student Advisee, * Substantially based on work done as a graduate student

2025 Harley, G., K. L. DeLong, **M. Lofverstrom**, C. A. Reese, S. J. Bentley Sr., K. Xie, S. Gonzalez, J. T. Troung, K. J. Heeter, A. L. Kaiser, and A. Caporaso: Rapid decline and mortality of a Pleistocene-aged forest now submerged in the northern Gulf of Mexico, USA, *npj Climate and Atmospheric Science,* 8, (59), doi:1038/s41612-025-00951-y

2024 Bradley, S., R. Sellevold, M. Petrini, M. Vizcaino, S. Georgiou, J. Zhu, J., B.L. Otto-Bliesner, **M. Lofverstrom, M.** (2024): Surface mass balance and climate of the Last Glacial Maximum northern hemisphere ice sheets: simulations with CESM2.1, Clim. Past, 20, 211–235, doi: 10.5194/cp-20-211-2024

2023 Oster, J., S. Macarewich, **M. Lofverstrom**, C. de Wet, I. Montañez, J. M. Lora, C. Skinner, C. Tabor (2023): North Atlantic meltwater during Heinrich Events drives wetter climate with more atmospheric rivers in western North America, Sci. Adv. 9, eadj2225, doi:10.1126/sciadv.adj2225

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Liu Z., Y. Bao, L.G. Thompson, E. Mosley-Thompson, C. Tabor, G.J. Zhang, **M. Lofverstrom**, I. Montanez, and J. Oster (2023): Tropical mountain ice core d18O: A Goldilocks indicator for global temperature change, Sci. Adv. 9, eadi6725, doi: 10.1126/sciadv.adi6725

Lofverstrom, M. and J. Zhu (2023): Tropical precipitation woes in the Community Earth System Model version 2, *Geophys. Res. Letters*, 50, e2023GL104416, doi: 10.1029/2023GL104416

2022

Herrington, A. R., P. H. Lauritzen, **M. Lofverstrom**, W. H. Lipscomb, A. Gettelman, and M. A. Taylor (2022): Impact of grids and dynamical cores in CESM2.2 on the surface mass balance of the Greenland Ice Sheet, J. Adv. Model. Earth Syst., 14, e2022MS003192, https://doi.org/10.1029/2022MS003192

Lofverstrom, M., D. Thompson, B. Otto-Bliesner, and E. Brady (2022): The importance of Canadian Arctic Archipelago gateways for glacial expansion in Scandinavia. *Nat. Geosci.* **15,** 482–488 (2022). https://doi.org/10.1038/s41561-022-00956-9

Bush, M.B., S. Conrad, A. Restrepo, D. M Thompson, **M. Lofverstrom**, and J. L. Conroy (2022): Human-induced ecological cascades: extinction, restoration, and rewilding in the Galápagos highlands, PNAS, 119, e2203752119, doi:10.1073/pnas.2203752119

Thompson, D. M., M. McCulloch, J. E. Cole, E. V. Reed, J. D'Olivo, K. Dyez, **M. Lofverstrom,** J. Lough, N. Cantin, A. W. Tudhope, A. H. Cheung, L. Vetter, and R. L. Edwards (2022): Marginal reefs under stress: physiological limits render Galápagos corals susceptible to warming and acidification, *AGU Advances*, 3, e2021AV000509, doi: 10.1029/2021AV000509

2021

Sommers, A., B. Otto-Bliesner, W.H. Lipscomb, **M. Lofverstrom**, S. Shafer, P. Bartlein, E. Brady, E. Kluzek, G. Leguy, K. Thayer-Calder, and R. Tomas (2021): Retreat and regrowth of the Greenland Ice Sheet during the Last Interglacial as simulated by the CESM2-CISM2 coupled climate–ice sheet model. *Paleoceanography and Paleoclimatology*, 36, e2021PA004272, doi: 10.1029/2021PA004272

Tabor, C., **M. Lofverstrom**, J. Oster, B. Wortham, C. de Wet, I. Montanez, A. Rhoades, C. Zarzycki, C. He, and Z. Liu (2021): A Mechanistic Understanding of Oxygen Isotopic Changes in the Western United States at the Last Glacial Maximum, *Q. Sci. Review* (invited), 274, 107255, doi: 10.1016/j.quascirev.2021.107255

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Menemenlis, S., J. Lora, **M. Lofverstrom**, and D. Chandan (2021): Influence of Stationary Waves on mid-Pliocene Atmospheric Rivers and Hydroclimate, *Global and Planetary Change*, 204, 103557, doi: 10.1016/j.gloplacha.2021.103557

Muntjewerf, L., W. J. Sacks, **M. Lofverstrom**, J. Fyke, W. H. Lipscomb, C. Ernani da Silva, C., M. Vizcaino K. Thayer-Calder, J. T. M. Lenaerts, and R. Sellevold (2021): Description and demonstration of the coupled Community Earth System Model v2 – Community Ice Sheet Model v2 (CESM2-CISM2), *J. Adv. Model. Earth Syst.*, 13, e2020MS002356, doi: 10.1029/2020MS002356

Kageyama, M., S. P. Harrison, M. Kapsch, **M. Lofverstrom**, J. M. Lora, U. Mikolajewicz, S. Sherriff-Tadano, T. Vadsaria, A. Abe-Ouchi, N. Bouttes, D. Chandan, L. Gregoire, R. Ivanovic, K. Izumi, A. N. LeGrande, F. Lhardy, G. Lohmann, P. A. Morozova, R. Ohgaito, A. Paul, W. R. Peltier, C. J. Poulsen, A. Quiquet, D. M. Roche, X. Shi, J. E. Tierney, P. J. Valdes, E. Volodin, and J. Zhu (2021): Status of the PMIP4 LGM experiments: first results, comparison to PMIP3 results and to new climatic reconstructions, *Clim. Past,* 17, 1065–1089, *doi:* 10.5194/cp-2019-169

Zhu, J., B. Otto-Bliesner, E. Brady, C. Poulsen, J. Tierney, **M. Lofverstrom**, and P. DiNezio (2021): Assessing equilibrium climate sensitivity of the Community Earth System Model version 2 through simulation of the last glacial maximum. *Geophys. Res. Letters,* 48 (3), e2020GL091220, doi: 10.1029/2020GL091220

Dow, W., A. Maycock, **M. Lofverstrom**, and C. J. Smith (2021): The effect of anthropogenic aerosols on the Aleutian Low, *J. Climate*, 34 (5), pp 1725-1741, doi: 10.1175/JCLI-D-20-0423.1

2020

Muntjewerf, L., R. Sellevold, M. Vizcaino, C. Ernani da Silva, M. Petrini, K. Thayer-Calder, M. Scherrenberg, S. Bradley, J. G. Fyke, W. H. Lipscomb, **M. Lofverstrom**, and W. J. Sacks (2020): Accelerated Greenland ice sheet mass loss under high greenhouse gas forcing as simulated by the coupled CESM2.1-CISM2.1, *J. Adv. Model. Earth Syst.*, 12, e2019MS002031, doi: 10.1029/2019MS002031

Lofverstrom, M., J. G. Fyke, K. Thayer-Calder, L. Muntjewerf, M. Vizcaino, W. J. Sacks, W. H. Lipscomb, B. L. Otto-Bliesner, and S. L. Bradley (2020): An efficient ice-sheet/Earth system model spinup procedure for CESM2-CISM2: description, evaluation and broader applicability, *J. Adv. Model. Earth Syst.*, 12, e2019MS001984, doi: 10.1029/2019MS001984

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Rehfeld, K., R. Hebert, J. Lora, **M. Lofverstrom**, and C. Brierley (2020): Variability of surface climate in simulations of past and future, *Earth Syst. Dynam.*, 11, 447–468, doi: 10.5194/esd-11-447-2020

Muntjewerf, L., M. Petrini, M. Vizcaino, C. Ernani da Silva, R. Sellevold, M. Scherrenberg, K. Thayer-Calder, S. Bradley, J. Lenaerts, W. H. Lipscomb, and **M. Lofverstrom** (2020): Greenland Ice Sheet Contribution to 21st Century Sea Level Rise as Simulated by the Coupled CESM2.1-CISM2.1, *Geophys. Res. Lett.*, 47, e2019GL086836, doi: 10.1029/2019GL086836

Tulenko, J. P., **M. Lofverstrom**, and J. P. Briner (2020): Ice sheet influence on atmospheric circulation explains the patterns of Pleistocene alpine glacier records in North America, *EPSL*, 534, doi: 10.1016/j.epsl.2020.116115

Lofverstrom, M. (2020): A dynamic link between precipitation extremes in western North America and Europe at the Last Glacial Maximum, *EPSL*, 534, doi: 10.1016/j.epsl.2020.116081

2018

Liakka, J. and **M. Lofverstrom** (2018): Arctic warming induced by the Laurentide ice sheet topography, *Clim. Past* 14, 887–900, doi: 10.5194/cp-14-887-2018

Fyke, J.G., O. Sergienko, **M. Lofverstrom**, J. Lenaerts, and S. Price (2018): An overview of interactions and feedbacks between ice sheets and the Earth system, *Reviews of Geophysics* 56, doi: 10.1029/2018RG000600

Lofverstrom, M., and J. Liakka (2018): The influence of atmospheric grid resolution in a climate model-forced ice sheet simulation, *The Cryosphere*, 12, 1499–1510, doi: 10.5194/tc-12-1499-2018 (highlighted)

2017

Lofverstrom, M., and J. M. Lora (2017): Abrupt regime shifts in the North Atlantic atmospheric circulation over the last deglaciation, *Geophys. Res. Lett.*, 44, doi: 10.1002/2017GL074274

2016

Otto-Bliesner, B., A. Jahn, R. Feng, E. Brady, A. Hu, and **M. Lofverstrom** (2016): Changes in Arctic Gateways Amplify North Atlantic Warming in the Late Pliocene, *Geophys. Res. Letters*, 44, doi: 10.1002/2016GL071805 (highlighted)

Lofverstrom, M., and J. Liakka (2016): On the limited ice intrusion in Alaska at the Last Glacial Maximum, *Geophys. Res. Letters*, 43, doi: 10.1002/2016GL071012

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*__Lofverstrom, M.__, R. Caballero, J. Nilsson, and G. Messori (2016): Stationary wave reflection as a mechanism for zonalising the Atlantic winter jet at the LGM, *J. Atm. Sci.*, 73, 3329–3342, doi: 10.1175/JAS-D-15-0295.1

Liakka, J., **M. Lofverstrom**, and F. Colleoni (2016): The impact of the North American glacial topography on the evolution of the Eurasian ice sheet over the last glacial cycle, *Clim. Past.*, 12, 1225–1241, doi: 10.5194/cp-12-1225-2016

2015 Pausata, F., and **M. Lofverstrom** (2015): On the enigmatic similarity in Greenland d18O between the Oldest and Younger Dryas, *Geophys. Res. Letters*, 42, doi: 10.1002/2015GL066042

*__Lofverstrom, M.__, J. Liakka, and J. Kleman (2015): The North American Cordillera – an impediment to growing the continent-wide Laurentide Ice Sheet, *J. Climate*, 28, 9433--9450, doi: 10.1175/JCLI-D-15-0044.1

2014 *__Lofverstrom, M.__, R. Caballero, J. Nilsson, and J. Kleman, (2014): Evolution of the large-scale atmospheric circulation in response to changing ice sheets over the last glacial cycle, *Clim. Past*, 10, 1453– 1471, doi: 10.5194/cp-10-1453-2014

2011 Liakka, J., J. Nilsson, and ***M. Lofverstrom** (2011): Interactions between stationary waves and ice sheets: linear versus nonlinear atmospheric response, *Clim. Dyn.*, 38, 1249– 1262, doi: 10.1007/s00382-011-1004-6

Other Publications

__Lofverstrom, M.__ and K. Thirumalai: Thermal forcing modulates the North American Monsoon, doi: https://doi.org/10.31223/X5Q634

__Lofverstrom, M.__ and D. Thompson (2022): Closed ocean gateways in the Canadian archipelago are key to glaciation in Scandinavia, Nature Geoscience Research Briefing

Zhu, J., B. Otto-Bliesner, E. Brady, C. Poulsen, J. Tierney, **M. Lofverstrom**, and P. DiNezio (2021): Ice Age Testing Reveals Challenges in Climate Model Sensitivity, *EOS Research Spotlight*

Otto-Bliesner, B., **M. Lofverstrom**, P. Bakker, and R. Feng (2019): Arctic warming and the Greenland Ice Sheet during the Last Interglacial as simulated by climate models: Responses and feedbacks to orbital forcing, *PAGES Science Highlights: Past Sea-Level Changes*

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Fyke, J.G., O. Sergienko, **M. Lofverstrom**, J. Lenaerts, and S. Price (2018): Icy interactions, *Eos*, 99, doi: 10.1029/2018EO100915

***Lofverstrom, M.** (2014): On the interaction between ice sheets and the large-scale atmospheric circulation over the last glacial cycle, *PhD thesis*, ISBN: 978-91-7649-010-5

Work in Progress

†Badarunnisa A., **M. Lofverstrom**, and D. Thompson: Evaluating the representation of South American summer precipitation characteristics in CMIP6 pre-industrial simulations**,** in preparation for *J. Climate*

Cole, Thompson, Dyez, Tripp, Tudhope, **Lofverstrom**, Stevenson, Okun, Lawson, Conroy, Jimenez, Edward: Recent intensification of eastern Pacific ENSO is unprecedented across the last millennium, in preparation for *Nature Communication*

‡Giralte, G. and **M. Lofverstrom**: Mechanistic drivers of the North American Monsoon, in preparation for *EPSL*

†Kojima, A. C, D. M. Thompson, and **M. Lofverstrom**: Characterizing the temporal variability of western equatorial Pacific Trade Winds via spectral analysis, in preparation for *J. Climate*

†Kojima, A. C, D. M. Thompson, J. E. Carilli, **M. Lofverstrom**, T. M. Marchitto, H. R. Sayani, G. A. Farfan, Z. E. Benson, V. G. Javier, M. M. Weerabaddana, D. L. Dettman, and K. M. Cobb: Coral Mn/Ca: A Window into Pacific Trade-wind Behavior, in preparation for *J. Climate*

Lofverstrom, M., A. Herrington, A. Born, and R. Beadling: Toward a realistic representation of katabatic storms in Greenland in reanalysis data and global Earth System Models, in preparation for *JGR: Atmospheres*

Meegan Kumar, D., J. E. Tierney, T. Bhattacharya, **M. Lofverstrom**, J. Zhu, and J. W. Murray: Response of the North American Monsoon to Glacial–Interglacial Climate Forcings, (in preparation

Osman, M., J. Tierney, **M. Lofverstrom**, J. Schnaubelt, C. Tabor, B. Markle, M. Aquino-Lopez: Global warming and Greenland ice sheet decay during the Last Interglacial, in preparation for *Nature*

‡Poonawala, K., and **M. Lofverstrom**: Is the Last Interglacial warm period a good process analog for future Greenland mass balance, in preparation for *Geophys. Res. Letters*

Richey J., K. Thirumalai, **M. Lofverstrom**, S. Truebe, and J. Cole: Holocene Deterioration of the Rio Grande outflow into the Gulf of Mexico: A multiproxy perspective, in preparation for *Nature*

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†Thomas, H. and **M. Lofverstrom**: On the representation of sudden stratospheric warming events in a low-top and a high-top atmosphere model, in preparation for *Geophys. Res. Letters*

†Thomas, H., J. Russell, R. Stouffer, and **M. Lofverstrom**: An Updated Inter-Reanalysis Comparison of Tropical Expansion & Edge Metrics, in preparation

Thompson D., J. D'Olivo. **M. Lofverstrom**, E. V. Reed, J. E. Cole, G. L. Foster, M. McCulloch, N. Cantin, K. Dyez, and J. Lough: Metabolic processes dictate corals capacity to upregulate their internal growth medium, in preparation for *Science Advances*

Media

USA Today (link)	2023
BBC (glacial climate documentary)	2022
UN News (link)	2022
Interview in *Alberta Views Magazine*	2018

Conferences / Scholarly Presentations (since joining UA in fall 2018)

Invited Seminars & Colloquia	Cornell University, Ithaca, NY	2023
	International Quaternary Webinar (U. Mass. Amherst)	2022
	Bjerknes Seminar, University of Bergen, Bergen, Norway	2022
	University of Utrecht, Utrecht, Netherlands	2022
	AMQUA, Seattle, WA	2020
	University of Arizona, Geosciences, Tucson, AZ	2019
	University of Arizona, Hydrology and Atmospheric Sciences, Tucson, AZ	2019
Convener & Meeting Organizer	*European Geophysical Union:* Palaeoclimate modeling: from time-slices and sensitivity experiments to transient simulations into the future	2023
	Multi-institutional (NSF) project meeting at the Florida Institute of Technology (20+ participants from U. Arizona, Union College, FIT)	2023

Conference Presentations: § Post-doctoral researcher advisee, † Graduate student advisee, ‡ Undergraduate Student Advisee, * Other Graduate or Undergraduate Student

Abdelkader Di Carlo, I, F.S.R. Pausata, M. Kageyama, C. Davrinche, **M. Lofverstrom**, U. Ninnemann (2025): Ice-sheet topography changes in North America affect teleconnection patterns on glacial time scales, EGU

‡Poonawala, K., and **M. Lofverstrom** (2025): Is the Last Interglacial Warm period a good analog for future Greenland mass balance, *Poster Presentation,* AMS (Best Undergraduate Poster Award)

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Osman, M, J. Tierney, **M. Lofverstrom**, J. Schnaubelt (2024): Reconstructing the coupled Greenland Ice Sheet--climate evolution during the Last Interglacial warm period, *Oral Presentation*, AGU

†Thomas, H., J. Russell, **M. Lofverstrom** (2024): Revisiting Tropical Expansion: A Comparative Study of Metrics Across Reanalysis Products, *Poster Presentation*, AGU

Thatcher, D., A. Hauser, A.Wanamaker, B. Black , D. Thompson , **M. Lofverstrom** (2024): Decoding the Salinity and Temperature Signal from δ 18O of a NE Pacific Geoduck (Panopea generosa): High-resolution SIMS and Traditional Bulk Mass Spectrometry, *Poster Presentation*, AGU

†Badarunnisa, A., **M. Lofverstrom**, and D. Thompson (2024): South American summer precipitation in CMIP6 models, *Oral Presentation,* GeoDaze

‡Poonawala, K., and **M. Lofverstrom** (2024): Mass Balance of the Greenland Ice Sheet in Past and Future Climates, *Poster Presentation,* GeoDaze

‡Giralte, G., and **M. Lofverstrom** (2024): Mechanistic Drivers of the North American Monsoon, Poster presentation, *Poster Presentation,* GeoDaze

‡Giralte, G., and **M. Lofverstrom** (2024): Mechanistic Drivers of the North American Monsoon, Poster presentation, *Poster Presentation,* El Dia (HAS, UofA)

Liu Z., Y. Bao, L.G. Thompson, E**.** Mosley-Thompson, C. Tabor, G.J. Zhang, **M. Lofverstrom**, I. Montanez, and J. Oster (2024): Tropical mountain ice core d18O: A Goldilocks indicator for global temperature change, *Oral Presentation*, EGU

Osman, M, J. Tierney, **M. Lofverstrom** (2024): Reconstructing the coupled Greenland Ice Sheet--climate evolution during the Last Interglacial warm period, *Oral Presentation*, EGU

Oster, J., S. Macarewich, **M. Lofverstrom**, C. de Wet, I. Montañez, J. M. Lora, C. Skinner, C. Tabor (2023): North Atlantic meltwater during Heinrich Events drives wetter climate with more atmospheric rivers in western North America, *Oral Presentation*, AGU

Liu Z., Y. Bao, L.G. Thompson, E**.** Mosley-Thompson, C. Tabor, G.J. Zhang, **M. Lofverstrom**, I. Montanez, and J. Oster: Tropical mountain ice core d18O: A Goldilocks indicator for global temperature change, *Oral Presentation*, AGU

†Badarunnisa, A., **M. Lofverstrom**, and D. Thompson (2023): South American summer precipitation in CMIP6 models, *Poster Presentation*, AGU

†Thomas, H. and **M. Lofverstrom** (2023): Cold weather in a warmer world, *Oral Presentation*, GeoDaze

‡Poonawala, K., and **M. Lofverstrom** (2023): Mass Balance of the Greenland Ice Sheet in Past and Future Climates, *Poster Presentation*, GeoDaze

Tabor, C., M. Lofverstrom, I. Montañez, J. Oster, C. Zarzycki (2023): Simulating Changes in Tropical Cyclone Activity During the Deglaciation, *Oral Presentation*, EGU (invited)

Richey J., K. Thirumalai, **M. Lofverstrom**, S. Truebe, and J. Cole (2022): Holocene Deterioration of the Rio Grande outflow into the Gulf of Mexico: A multiproxy perspective, *Oral Presentation*, ICP

Otto-Bliesner et al. **M. Lofverstrom** (2022): The Greenland Ice Sheet During the Last Interglacial in CESM2-CISM2, *Oral presentation*, IPICS

Abella-Gutiérrez, J. L., **M. Lofverstrom**, D. Thompson, V. Trouet, and B. A. Black (2022): Three centuries of multidecadal covariance between North Pacific sea surface temperature and western North American hydroclimate, *Oral presentation*, International Sclerochronology Conference

Oster, J. S. Macarewich, C. Tabor, **M, Lofverstrom**, B. Wortham, C. de Wet, I. Montañez (2022): North Atlantic freshwater forcing during Heinrich Events drives wetter climate in western North America, *Oral Presentation*, GSA

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†Thomas, H. and **M. Lofverstrom** (2022): Cold weather in a warmer world, *Poster presentation*, AGU

†Badarunnisa, A. and **M. Lofverstrom** (2022): Understanding the 'new norm' of extreme events: Atmospheric rivers and climate change, AGU

Lofverstrom, M. (2022), Is the Last Interglacial warm period a good analog for the future? *Oral Presentation*, CESM Workshop

†Berry, A., and **M. Lofverstrom** (2022): Summer precipitation patterns influence Greenland Ice Sheet regrowth during the Last Interglacial Period, *Oral Presentation*, GeoDaze

†Thomas, H., and **M. Lofverstrom** (2022): Cold weather in a warmer world, *Poster Presentation*, GeoDaze

†Badarunnisa, A., and **M. Lofverstrom** (2022): Understanding the 'new norm' of extreme events: Atmospheric rivers and climate change, *Poster Presentation*, GeoDaze

‡Malmgren, T., and **M. Lofverstrom** (2022): Differences in Annual Surface Temperature Between the Preindustrial Reference Period and the Last Interglacial Period, *Oral Presentation*, GeoDaze

‡Freeman, B., and **M. Lofverstrom** (2022): Analysis of the Spatial and Temporal Frequency of Greenland's Regional, Major Precipitation Events at the End of the 21st Century, *Oral Presentation*, GeoDaze

Tabor, C.R., **M. Lofverstrom,** J. Oster, B. Wortham, C. de Wet, C., and I. Montanez (2021): Hydrologic and isotopic changes in the Western United States at the Last Glacial Maximum, *Oral Presentation*, 30th anniversary PMIP

*Menemenlis, S. J. M. Lora, **M. Lofverstrom**, D. Chandan: Atmospheric rivers influenced by stationary wave changes in model of mid-Piacenzian climate, *Oral Presentation*, 30th anniversary PMIP, 2021

Oster J., C. Tabor, **M. Lofverstrom**, B. Wortham, C. de Wet, I. Montañez (2021): Estimating deglacial precipitation change in western North America from speleothem records and isotope enabled model simulations, *Oral Presentation*, KR Online

†Berry, A., **M. Lofverstrom** (2021): The Climate Response to Greenland's Deglaciation in Past, Present, and Future Climates, *Oral Presentation*, GeoDaze

Tabor, C. R., **Lofverstrom, M.**, Oster, J., Wortham, B., de Wet, C., Montanez, I. (2021): Storminess and Isotopic Changes in the Western United States at the Last Glacial Maximum, *Oral Presentation*, CESM Workshop

Herrington, A., **M. Lofverstrom**, P. Lauritzen, A. Gettelman (2021): Update: Variable-resolution Arctic simulations, *Oral Presentation*, CESM Workshop

Lofverstrom, M., D. Thompson, B. Otto-Bliesner, E. Brady (2021): Closure of the Canadian Arctic Gateways as a key prerequisite for glacial inception in Scandinavia, *Oral Presentation*, CESM Workshop

Brady, E. C., B. L. Otto-Bliesner, J. Zhu, R. Feng, R. Tomas, P. DiNezio, **M. Lofverstrom**, N. Rosenbloom (2020): Sensitivity of the Atlantic Meridional Overturning Circulation to Different Paleoclimate States Simulated with the Community Earth System Model, *Oral Presentation*, AGU Fall Meeting

*Dow, W., A. Maycock, **M. Lofverstrom**, J. Smith (2020): The Influence of Anthropogenic Aerosols On the Aleutian Low, *Poster Presentation*, AGU Fall Meeting

Zhu, J., B. L. Otto-Bliesner, E. C. Brady, C. J. Poulsen, J. Tierney, **M. Lofverstrom**, P. DiNezio (2020): Constraining the climate sensitivity in CESM2 through simulation of the Last Glacial Maximum, *Oral Presentation*, AGU Fall Meeting

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§Odalen M., **M. Lofverstrom** (2020): How ocean circulation and its forcing are linked to global ocean carbon storage in warm climates simulated with CESM2, *Poster Presentation*, AGU Fall Meeting

*Menemenlis, S., J. M. Lora, **M. Lofverstrom**, D. Chandan, D. E. Ibarra (2020): Regional precipitation influenced by stationary wave changes in model of mid-Piacenzian climate, *Oral Presentation,* AGU Fall Meeting

*Menemenlis, S., J. M. Lora, **M. Lofverstrom**, D. Chandan (2020): Atmospheric rivers influenced by stationary wave changes in model of mid-Piacenzian climate, *Oral Presentation*, IARC

Rehfeld, K., R. Hebert, **M. Lofverstrom**, J. Lora, C. Brierley (2020): Surface climate variability of the Earth in past and future, *Oral Presentation*, PMIP4 Nanjing

Rehfeld, K., R. Hebert, **M. Lofverstrom**, J. Lora, C. Brierley (2020): Variability of surface climate in simulations of past and future, *Oral Presentation*, European Geosciences Union

*Muntjewerf L., M. Petrini, M. Vizcaino, C. Ernani da Silva, R. Sellevold, M. Scherrenberg, K. Thayer-Calder, S. Bradley, J. Lenaerts, W. Lipscomb, **M. Lofverstrom** (2020): Greenland ice sheet Contribution to 21st century sea level rise as modelled by the coupled CESM2.1-CISM2.1, *Oral Presentation*, European Geosciences Union

Vizcaino, M., L. Muntjewerf, R. Sellevold, C. Ernani da Silva, M. Petrini, K. Thayer-Calder, M. Scherrenberg, S. Bradley, J. Fyke, W. Lipscom, **M. Lofverstrom**, W. Sacks (2020): Coupled ice-climate simulation of future Greenland ice sheet evolution: mechanisms, thresholds and feedbacks for accelerated mass loss, *Oral Presentation*, European Geosciences Union

*Dow, W., A. Maycock, **M. Lofverstrom**, C.J. Smith (2020): The Influence of Anthropogenic Aerosols on the Aleutian Low, *Poster Presentation*, European Geosciences Union

Sommers, A., B. Otto-Bliesner, B., W.H. Lipscomb, **M. Lofverstrom**, S. Shafer, P. Bartlein, E. Brady, E. Kluzek, G. Leguy, K. Thayer-Calder, R. Tomas (2020): Retreat of the Greenland Ice Sheet during the Last Interglacial, *Oral Presentation*, NCAR Paleo working group meeting (winter)

Tabor, C., **M. Lofverstrom**, I.P. Montanez, C. de Wet, B. Wortham (2020): Using iCESM to Understand Hydroclimate in Southwest North America, *Oral Presentation*, NCAR Paleo working group meeting (winter)

Bradley, S.L., M. Petrini, M., Vizcaino, E., Kluzek, B.S. Lecavalier, J. Ely, W.H. Lipscomb, W. Sacks, **M. Lofverstrom**, C. Clark (2020): Fully coupled simulation of the Northern Hemisphere climate and ice sheets during the Last Glacial Maximum with CESM2.1/CISM2.1, *Oral Presentation*, Quaternary Research Associations

Herrington, A., P.H. Lauritzen, **M. Lofverstrom**, A. Gettelman, W. Lipscomb, G. Leguy, R. Wijngaard, C. Craig, B. Eaton, C. Fisher, E. Kluzek (2020): Progress on vr-CESM for polar science, *Oral Presentation*, NCAR Polar working group meeting (summer)

Herrington, A., P.H. Lauritzen, **M. Lofverstrom**, A. Gettelman, W. Lipscomb, C. Craig, B. Eaton, C. Fisher, E. Kluzek (2020): Impact of horizontal resolution on the meteorology and climate of Greenland, *Oral Presentation*, NCAR Polar working group meeting (summer)

Oster, J.L., C. Tabor, **M. Lofverstrom**, I.P. Montanez, C. de Wet, B. Wortham, C. He, Z. Liu, J. Lora (2020): Estimating deglacial precipitation changes in western North America from speleothem records and isotope-enabled model simulations, *Oral Presentation*, K9, Innsbruck

Lofverstrom, M., D. Thompson, E. Brady, B. Otto-Bliesner (2020): The importance of Arctic gateways for Northern Hemisphere glacial inception, *Oral Presentation*, AMQUA, Seattle, WA

Lofverstrom, M., M. Kageyama (2020): The PMIP4-CMIP6 Last Glacial Maximum experiments: preliminary results and comparison with the PMIP3-CMIP5 simulations, *Oral Presentation*,

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NCAR paleoclimate working group meeting (winter)

Tabor, C., **M. Lofverstrom**, J. Oster, I. P. Montanez, C. de Wet, B. Wortham, C. He, Z. Liu, J. Lora (2019): High-Resolution Simulations for Understanding the Climate of Southwest North America at the Last Glacial Maximum, *Oral Presentation*, American Geophysical Union

Sommers, A., B. Otto-Bliesner, B., W.H. Lipscomb, **M. Lofverstrom**, S. Shafer, P. Bartlein, E. Brady, E. Kluzek, G. Leguy, K. Thayer-Calder, R. Tomas (2019): Retreat of the Greenland Ice Sheet during the Last Interglacial, *Oral Presentation*, American Geophysical Union

Oster, J.L., C. Tabor, **M. Lofverstrom**, I.P. Montanez, C. de Wet, B. Wortham, C. He, Z. Liu (2019): Comparing Precipitation Seasonality During the Last Deglaciation from Speleothem Records and Isotope-enabled Model Simulations, *Oral Presentation*, American Geophysical Union

Ashokkumar, L., C. Harig, **M. Lofverstrom** (2019): 21st century estimates of volume and mass loss rates from glaciers using a GRACE constrained mass balance model under climate emission scenarios, *Poster Presentation*, American Geophysical Union

Lofverstrom, M., D. Thompson, E. Brady, B. Otto-Bliesner (2019): The importance of Arctic gateways for Northern Hemisphere glacial inception, *Oral Presentation*, American Geophysical Union (AGU)

Lofverstrom, M. (2019): On the link between waveguides, quasi-stationary waves, and jet zonalisation at the Last Glacial Maximum, *Poster Presentation,* Past 2 future (P2F) University College London, London, UK

Tabor. C., **M. Lofverstrom**, B. Wortham I.P. Montanez Oster, J.L., , C. de Wet, C. He, Z. Liu (2019): Climate Change in Southwest North America During the Last Deglaciation, Poster Presentation, NCAR Isotope Modeling Workshop

Lipscomb, W., et al. **M. Lofverstrom** (2019): Land Ice Working Group overview, *Oral Presentation*, NCAR Land-ice working group meeting

Lofverstrom, M. (2019): On the link between waveguides, quasi-stationary waves, and jet zonalisation at the Last Glacial Maximum, *Oral Presentation*, CESM Winter Workshop, Boulder, CO

Bradley, S. L., M. Petrini, M., Vizcaino, E., Kluzek, B. S. Lecavalier, J. Ely, W. H. Lipscomb, W. Sacks, **M. Lofverstrom**, C. Clark (2019): Fully coupled simulation of the Northern Hemisphere climate and ice sheets during the Last Glacial Maximum with CESM2.1/CISM2.1, *Oral Presentation*, International Union for Quaternary Research

*Muntjewerf, L., W. Lipscomb, K. Thayer-Calder, W. Sacks, S. Bradley, **M. Lofverstrom**, J. Fyke, C. Ernani da Silva, R. Sellevold, M. Petrini, M. Vizcaino (2019): Future evolution of the Greenland Ice Sheet in a coupled climate and ice sheet model: CESM2.1-CISM2.1 contribution to ISMIP6, *Oral Presentation*, European Geosciences Union

Sommers, A., **M. Lofverstrom**, W. Lipscomb, B. Otto-Bliesner (2019): Characteristics of the Greenland ice sheet during the Last Interglacial: A view from previous simulations, and upcoming plans, *Oral Presentation*, NCAR Land-ice working group meeting

Lipscomb, W., et al. M. Lofverstrom (2019): Progress in modeling ice sheets in the CESM, *Oral Presentation*, NCAR Land-ice working group meeting (winter)

*Muntjewerf, L., W. Lipscomb, K. Thayer-Calder, W. Sacks, S. Bradley, **M. Lofverstrom**, J. Fyke, C. Ernani da Silva, R. Sellevold, M. Petrini, M. Vizcaino (2019): Future evolution of the Greenland Ice Sheet in a coupled climate and ice sheet model: CESM2.1-CISM2.1 contribution to ISMIP6, *Oral Presentation*, NCAR Polar working group meeting (winter)

*Muntjewerf, L., **M. Lofverstrom**, W. Lipscomb, K. Thayer-Calder, W. Sacks, S. Bradley, J. Fyke,

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C. Ernani da Silva, R. Sellevold, M. Petrini, M. Vizcaino (2019): Processes in the future evolution of the Greenland Ice Sheet in a coupled climate and ice sheet model, *Oral Presentation*, NCAR Land-ice working group meeting (winter)

*Muntjewerf, L., **M. Lofverstrom**, W. Lipscomb, K. Thayer-Calder, W. Sacks, S. Bradley, J. Fyke, C. Ernani da Silva, R. Sellevold, M. Petrini, M. Vizcaino (2019): Ice-sheet/climate model coupling: An efficient spin-up procedure for CESM2.1 and CISM2.1, *Oral Presentation*, NCAR Land-ice working group meeting (winter)

Bradley, S.L., M. Petrini, M., Vizcaino, E., Kluzek, B.S. Lecavalier, J. Ely, W.H. Lipscomb, W. Sacks, **M. Lofverstrom**, C. Clark (2019): Simulating the Northern Hemisphere climate and ice sheets during the last deglaciation with CESM2.1/CISM2.1, *Oral Presentation*, NCAR Land-ice working group meeting (winter)

Tabor**,** C., **M. Lofverstrom**, I. Montañez, J. Oster, B. Wortham, C. de Wet (2019): A mechanistic understanding of precipitation isotopic changes in the Western United States since the **LGM**, *Oral Presentation*, European Geosciences Union

*Tulenko, J, **M. Lofverstrom**, J. Briner (2018): Preserving the MIS 4 Glacial Record in Beringia: Laurentide Ice Sheet Configuration Disrupts Largescale Atmospheric Circulation During MIS2, *Poster Presentation*, American Geophysical Union

Awarded Grants and Contracts

Federal

2023-2026

Title of Grant: Collaborative Research: Millennial-Length Histories of Northeastern Pacific Climate Variability from Bivalve Mollusks and Trees
Commitment (person-month) (Y1/Y2/Y3): 0.5/0.5/0.5
Role: co-PI
Other PIs/co-PIs: B. Black (PI), D. Thompson (co-PI), A. Wannamaker (co-PI)
Source of support: NSF-AGS-P2C2
Period covered: 7/1/2023 – 2026
Total Award Amount: $639,466

2022-2025

Title of Grant: REU Site: From the Clouds to the Core: A Place-Based REU for Southwestern US Community/Tribal College Students to Increase Under-Represented Group Recruitment to the Geosciences
Commitment (person-month) (Y1/Y2/Y3): 0/0/0
Role: unfunded collaborator
Other PIs/co-PIs: M. Andrew Cohen, Kaustubh Thirumalai
Source of support: NSF-EAR
Period covered: 11/1/2022 – 10/31/2025
Total Award Amount: $402,893 (Lofverstrom $0)

2022-2025

Title of Grant: A Paleoclimate reanalysis of the coupled Greenland Ice Sheet – climate evolution during the Last Interglacial
Commitment (person-month) (Y1/Y2/Y3): 0.5/0.5/0.5

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Role: co-PI
Other PIs/co-PIs: M. Osman (PI), J. Tierney (co-PI)
Source of support: NSF-OPP
Period covered: 9/1/2022 – 8/31/2025
Total Award Amount: $387,546

2020-2025

Title of Grant: High resolution simulations of hydroclimate changes in South America through the Holocene and instrumental era
Commitment (person-month) (Y1/Y2/Y3/Y4): N/A
Role: PI
Source of support: University Corporation for Atmospheric Research (UCAR), Computational & Information Systems Lab (CISL)
Period covered: 11/1/2020 – 6/30/2025
Total Award Amount: 9,475,000 core-hours on the Cheyenne Supercomputer

2020-2026

Title of Grant: Unravelling the Signals in Tropical Pacific Lake Archives: Towards Improved Holocene Hydroclimate Reconstructions
Commitment (person-month) (Y1/Y2/Y3): 0.5/0.5/0.5/0.0
Role: PI
Other PIs/co-PIs: D. Thompson (co-PI). M. Bush (co-PI); D. Rodbell (co-PI)
Source of support: NSF-AGS-P2C2
Period covered: 7/1/2020 – 6/30/2026
Total Award Amount: $751,462 (UA: $547,191)

2019-2023

Title of Grant: High resolution simulations of the last deglaciation for understanding abrupt hydroclimate change in Southwest North America
Commitment (person-month) (Y1/Y2/Y3): N/A
Role: co-PI
Other PIs/co-PIs: C. Tabor (PI)
Source of support: University Corporation for Atmospheric Research (UCAR), Computational & Information Systems Lab (CISL)
Period covered: 10/1/2019 – 8/31/2021
Total Award Amount: 15,800,000 core-hours on the Cheyenne Supercomputer

2018-2023

Title of Grant: Moisture source and storm track variability in western North America during the last deglaciation and Holocene
Commitment (person-month) (Y1/Y2/Y3/Y4): N/A
Role: co-PI
Other PIs/co-PIs: J. Oster (PI), C. Tabor (co-PI), I. Montanez (co-PI)
Source of support: University Corporation for Atmospheric Research (UCAR), Computational & Information Systems Lab (CISL)
Period covered: 5/1/2018 – 8/31/2021
Total Award Amount: 10,000,000 core-hours on the Cheyenne Supercomputer

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2019 **Title of Grant**: Collaborative Research: Multi-Time-Scale Climate Dynamics in California: An Integrated Multi-Proxy Stalagmite, Monitoring, and Modeling Approach
Commitment (person-month) (Y1): N/A
Role: co-PI
Other PIs/co-PIs: C. Tabor (PI)
Source of support: National Center for Supercomputing Applications (NCSA)
Period covered: 5/1/2019 – 12/31/2019
Total Award Amount: 21,000,000 core-hours on the Bluewaters Supercomputer

2017-2019 **Title of Grant**: Transient evolution of the Greenland Ice Sheet over the Last Interglacial warm period
Commitment (person-month) (Y1/Y2): N/A
Role: PI
Other PIs/co-PIs: none
Source of support: University Corporation for Atmospheric Research (UCAR), Computational & Information Systems Lab (CISL)
Period covered: 5/1/2017 – 8/31/2019
Total Award Amount: 8,400,000 core-hours on the Cheyenne Supercomputer

University of Arizona

2019-2021 **Title of Grant**: Thermal and topographic control of the extratropical atmospheric circulation
Commitment (person-month) (Y1/Y2): 1/1
Role: PI
Other PIs/co-PIs: none
Source of support: University of Arizona
Period covered: 7/1/2019 – 7/31/2021
Total Award Amount: $15,000

Pending Grants and Contracts

Federal

2025-2030 **Title of Grant**: CAREER: Constraining future Greenland mass loss and extratropical climate interactions: what can we learn from interglacial warm states?
Commitment (person-month) (Y1/Y2/Y3/Y4/Y5): 1/1/1/1/1
Role: PI
Other PIs/co-PIs: N/A
Source of support: NSF
Period covered: 7/1/2025 – 6/30/2030

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Total Award Amount: $712,762

2024-2029

Title of Grant: Collaborative Research: Pliocene paleoclimate in the North American monsoon belt and implications for future climate change in the region
Commitment (person-month) (Y1/Y2/Y3/Y4/Y5): 0.3/0.3/0.3/0.3/0.3
Role: co-PI
Other PIs/co-PIs: A. Cohen (PI), J. Quade (co-PI) D. Thompson (co-PI), K. Thirumalai (co-PI)
Source of support: NSF-FRES
Period covered: 10/1/2024 – 9/30/2029
Total Award Amount: $2,121,695

Grants and Contracts not awarded

Federal

2023 (un-awarded)

Title of Grant: CAREER: Greenland mass loss and global climate feedbacks: to what extent can past warm states inform the future?
Commitment (person-month) (Y1/Y2/Y3/Y4/Y5): 1/1/1/1/1
Role: PI
Other PIs/co-PIs: N/A
Source of support: NSF
Period covered: 7/1/2024 – 6/30/2029
Total Award Amount: $683,646

2023 (un-awarded)

Title of Grant: Collaborative Research: Pliocene paleoclimate in the North American monsoon belt and implications for future climate change in the region
Commitment (person-month) (Y1/Y2/Y3/Y4/Y5): 0.3/0.3/0.3/0.3/0.3
Role: co-PI
Other PIs/co-PIs: A. Cohen (PI), J. Quade (co-PI) D. Thompson (co-PI), K. Thirumalai (co-PI)
Source of support: NSF-FRES
Period covered: 10/1/2023 – 9/30/2028
Total Award Amount: $2,121,695

2022 (un-awarded)

Title of Grant: Collaborative Research: Millennial-Length Histories of Northeastern Pacific Climate Variability from Bivalve Mollusks and Trees
Commitment (person-month) (Y1/Y2/Y3): 1/1/1
Role: Co-PI
Other PIs/co-PIs: B. Black (PI), D. Thompson (co-PI), A. Wannamaker (co-PI)
Source of support: NSF-OCE (MG&G)
Period covered: 7/1/2023 – 6/30/2026
Total Requested: $611,990

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2021 (un-awarded)

Title of Grant: Collaborative Research: Millennial-Length Histories of Northeastern Pacific Climate Variability from Bivalve Mollusks and Trees
Commitment (person-month) (Y1/Y2/Y3): 1/1/1
Role: Co-PI
Other PIs/co-PIs: B. Black (PI), D. Thompson (co-PI), A. Wannamaker (co-PI)
Source of support: NSF-OCE (MG&G)
Period covered: 7/1/2022– 6/30/2025
Total Requested: $566,350

2021 (un-awarded)

Title of Grant: NASA-Earth Venture Mission 3; Southern Ocean Storms – Zephyr: Measuring Southern Ocean Winds from Space to Close the Carbon Budget
Commitment (person-month) (Y1/Y2/Y3/Y4/Y5): 1/1/1/1/1
Role: Co-I
Other PIs/co-PIs: Russell, J. (PI), D. Long (deputy PI), P. Chang (co-I), E. Churchister (co-I), M. Dinniman (co-I), P Goodman (co-I), Z. Jelanak (co-I), J. Klink (co-I), N. Lovenduski (co-I), M. Mazloff (co-I), E. Rodriguez (co-I), O. Schofield (co-I), R. Stouffer (co-I), R. Wanninkhof (co-I), X, Zheng (co-I), A. Stouffelen (collaborator), C. Coe (industry partner), M. Cowell (industry partner), M. Davis (industry partner), S. Petroy (industry partner), Q. Remund (industry partner), C. Weimer (industry partner), C. Fellow (project manager)
Source of support: NASA
Period covered: 7/1/2022– 6/30/2025
Total Requested: $190,800,000

2021 (un-awarded)

Title of Grant: Sudden stratospheric warming events in the Community Earth System model: Examining differences in event structure between high top and low top configurations
Commitment (person-month) (Y1/Y2/Y3/Y4): 0/0/0/0
Role: PhD supervisor
Other PIs/co-PIs: Holly Thomas (PI)
Source of support: NSF GRFP
Period covered: 2022–2025

2021 (un-awarded)

Title of Grant: The Climate Response to Greenland's Deglaciation in Past, Present, and Future Climates
Role: PhD supervisor
Other PIs/co-PIs: Allison Berry (PI)
Source of support: NSF GRFP
Period covered: 2021–2024

2020 (un-awarded)

Source of support: NOAA Climate and Global Change Fellowship Program
Role: Postdoc supervisor

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Other PIs/co-PIs: Majoi Nascimento (PI), D. Thompson (co-Postdoc supervisor)
Period covered: 2020–2022

2020 (un-awarded)
Source of support: NOAA Climate and Global Change Fellowship Program
Role: Postdoc supervisor
Other PIs/co-PIs: Stephanie Arcusa (PI), K. Anchukaitis (co-Postdoc supervisor)
Period covered: 2020–2022

2019 (un-awarded)
Source of support: NOAA Climate and Global Change Fellowship Program
Role: Postdoc supervisor
Other PIs/co-PIs: Adam Herrington (PI)
Period covered: 2019–2021

2021 (un-awarded)
Source of support: Sloan Research Fellowship
Commitment (person-month) (Y1/Y2): 0/0
Role: PI
Other PIs/co-PIs: N/A
Period covered: 2021–2023
Total Requested: $80,000

2021 (un-awarded)
Title of Grant: Assessing high-latitude storm characteristics in a warming world
Source of support: CNRS-UArizona IRC Graduate Fellowship Program
Commitment (person-month) (Y1/Y2): 0/0
Role: PI
Other PIs/co-PIs: Gwendal Riviere (co-PI)
Period covered: 2021–2023
Total Requested: 2-year graduate student support

2021 (un-awarded)
Title of Grant: SEASENS: Calibrating seasonality to assess climate sensitivity in warm climates
Source of support: CNRS-UArizona IRC Graduate Fellowship Program
Commitment (person-month) (Y1/Y2): 0/0
Role: co-PI
Other PIs/co-PIs: Clara Bolton (PI), Guillaume Leduc (co-PI), Thibault de Garidel Thoron (co-PI), Kaustubh Thirumalai (co-PI), Lael Vetter (co-PI)
Period covered: 2021–2023
Total Requested: 2-year graduate student support