

Matthew B. Osman

Personal information

Website	https://mattosman.github.io/ (https://osmanclimate.com)
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Hometown	Williamsville, IL USA
Social media	None* <i>*No, that's not an oversight. Yes, I'm a real person.</i>
Research foci	Data assimilation, ice cores, Arctic & midlatitude dynamics, paleoclimatology, paleoceanography, proxy development, data analysis, statistics, inverse methods

Professional appointments

2023 –	University Assistant Professor , <i>Dept. of Geography, University of Cambridge, UK</i>
2022 –	Research Affiliate , <i>Dept. of Geology, University of Arizona, USA</i>
2019–2022	Postdoctoral Researcher , <i>Climate Systems Center, University of Arizona, USA</i>

Education

2014–2019	Ph.D. in Climate Science , <i>Massachusetts Institute of Technology / Woods Hole Oceanographic Institution (MIT/WHOI) Joint Program, USA</i> <i>Thesis: Greenlandic ice archives of North Atlantic Common Era climate</i>
2010–2014	BA in Geology with Distinction , <i>Augustana College, USA</i> <i>Concentrations: Mathematics and Environmental Studies</i> <i>Graduated summa cum laude</i>

Philosophae

I believe that human-induced climate change is the foremost crisis facing humanity today.

I believe in equality for all*, and that we need everyone's unique insights to address the climate crisis.

*regardless of race, age, gender, nationality, religion, ethnicity, upbringing, class, orientation, education, political lean, ability, or identity more broadly

I believe in the power of the golden rule and the notion that respect given is respect earned.

Selected honors and awards

Marie Skłodowska-Curie Actions (MSCA) Postdoc Fellowship (offer declined)

European Commission-funded

Ocean Outlook Research Fellowship

6-month research fellowship, Bjerknes Centre for Climate Research, Norway

National Defense Science and Engineering Graduate (NDSEG) fellowship

U.S. Department of Defense-funded

Fulbright Research Fellowship to Sweden (offer declined)

U.S. Department of State-funded research fellowship to University of Stockholm

Dr. C. Leland Horberg Scholarship in Geology

Awarded to top graduating Augustana College Geology senior

Glenn T. Seaborg Science Award *finalist*

Augustana College's sole nominee (1/2600 students)

NASA Field Research Award

Juneau Icefield Research Program award fellowship

———— **Selected failures**

Too many to count

———— **Scientific publications**

In the queue

- ~ **Osman, M.B.**, S.B. Das and Madsen, C. (ant. Nov. 2022 submission): Rapid Greenland climate changes foreshadow collapse of Norse settlements, *in prep for GRL*.
- ~ **Osman, M.B.** and Abell, J. (ant. Spring 2023 submission): Mid-Pliocene westerly changes in PliomIP2 (working title), *in prep for Climate of the Past*.
- ~ **Osman, M.B.** et al. (invited contribution; ant. Summer 2023 submission): The deglacial evolution of Northern Hemisphere jet stream changes, *in prep for Quaternary Science Reviews*.
- ~ **Osman, M.B.**, Koffman, B., Criscitiello, A., and Guest, S. (ant. Winter 2022/23 submission): Five decades of international partnerships in ice core sciences, *in prep for The Cryosphere*
- ~ King, J., Tierney, J., **Osman, M. B.**, Anchukaitis, K., Judd, E. (ant. Winter 2022/23 submission): DASH: A MATLAB Toolbox for Paleoclimate Data Assimilation, *in prep for Geoscientific Model Development*.
- ~ Jiang, Z et al. (ant. Dec. 2022 submission): Simulated trends in the Atlantic Meridional Overturning Circulation during the Holocene, *in prep for GRL*.
- ~ Hansen, J. et al. (ant. Nov. 2022 submission): Global warming in the pipeline, *in prep for Oxford Open Climate Change*.
- ~ Abell, J. et al. (ant. Winter 2022/23 submission): Spatial and temporal variability of marine sediment solid-phase iron speciation in the North Pacific Ocean, *in prep for EPSL*.

Published

- Nov. 2021 **Osman, M.B.**, J.E. Tierney, J. Zhu, R. Tardif, J. King, G.J. Hakim and C.J. Poulsen: Globally resolved surface temperatures since the Last Glacial Maximum, *Nature*, **599**, 239-244, 2021.
Nature News and Views highlight, [here](#).
Non-peer reviewed (EarthArXiv) pre-print, [here](#).
- Sep. 2021 **Osman, M.B.**, S. Coats, J.R. McConnell, N. Chellman, S.B. Das: North Atlantic jet stream projections from a 1,250 year context, *Proceedings of the National Academy of Sciences*, **118**(38), e2104105118, 2021.
Selected as "In this issue" cover highlight
- Sep. 2021 **Osman, M.B.**, B.E. Smith, L.D. Trusel, S.B. Das, J.R. McConnell, N. Chellman, M. Arienzo, and H. Sodemann: Enhanced sensitivity of west Greenland ice caps to last millennium climate change, *Nature Geoscience*, **14**, 756–761, 2021.

Selected as Journal cover highlight

- Aug. 2021 Criscitiello, A.S., T. Geldsetzer, R. Rhodes, M. Arienzo, J.R. McConnell, N. Chellman, **M.B. Osman**, J.J. Yackel, and S. Marshall: Marine aerosol records of Arctic sea-ice and polynya variability from new Ellesmere and Devon Island firn cores, Nunavut, Canada, *JGR Oceans*, **126**, e2021JC017205, 2021. `
- May 2019 **Osman, M.B.**, Das, S.B., Trusel, L.D., Evans, M., Fischer, H., Grieman, M., Kipfstuhl, S., McConnell, J.R., Saltzman, E.: Industrial-era decline of subarctic Atlantic productivity, *Nature*, **569**, 551-555, 2019.
- Dec. 2018 Trusel, L.D., Das, S.B., ***Osman, M. B.**, et al.: Nonlinear rise in Greenland runoff in response to post-industrial Arctic Warming, *Nature*, **564**, 104–108, 2018.
- Nov. 2017 **Osman, M.B.**, Das, S.B., Marchal, O., and Evans, M.J.: Methanesulfonic acid (MSA) migration in polar ice: Data synthesis and theory, *The Cryosphere*, **11**, 2439-2462, 2017.

Selected as 2017 editor's highlight

- Nov. 2017 **Osman, M.**, Zawadowicz, M. A., Das, S. B., and Cziczo, D. J.: Real time analysis of insoluble particles in glacial ice using single particle mass spectrometry, *Atmos. Meas. Tech.*, **10**, 4459-4477, 2017.

Pride and joy

Juniper, my furry little desert pup.

