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Education

Ph.D. in Civil and Environmental Engineering, Princeton University, 2008.

M.Sc. in Geography, University of Copenhagen, Copenhagen, Denmark, 2001.

B.Sc. in Geography, University of Copenhagen, Copenhagen, Denmark, 1997.

Academic Appointments

2024–present Professor, Department of Geography, Rutgers University.

2015–2024 Associate Professor, Department of Geography, Rutgers University.

2009–2015 Assistant Professor, Department of Geography, Rutgers University.

2007–2009 Postdoctoral Scholar, Department of Geography, University of California Los Angeles

Professional Leadership and Service

2013–present Undergraduate Program Director, Geography

2025–present President, Cryosphere Section; Vice Chair, AGU Council; Member, AGU Board of Directors, American Geophysical Union (AGU)

2023–2024 President-elect, Cryosphere Section, AGU

2023–2024 Board of Directors, CUAHSI

Honors and Awards

2024–2026 Fulbright Arctic Initiative Scholar, including three-month research exchange at the Greenland Climate Research Centre, Nuuk, Greenland.

2022 Most Valuable Professor: Rutgers Volleyball Team.

2019 Kavli Fellow (selected to participate in the Kavli Frontiers of Science symposium organized by the U.S. National Academy of Sciences).

2019 Excellence in Teaching & Mentoring Award (Faculty) from the Rutgers School of Graduate Studies.

2018 First-Year Interest Group Seminars (FIGS) Mentors Award.

Publications

Supervised graduate students, postdoctoral scholars, and research associates are in bold and indicated by asterisk

- 48 Cooper, M. G., Smith, L. C., Rennermalm, Å. K., Ryan, J. C., Pitcher, L. H., Liston, G. E., et al.: Greenland ice sheet runoff reduced by meltwater refreezing in bare ice. *Nat. Comm.*, 16(1), 8273. <https://doi.org/10.1038/s41467-025-62281-0>, 2025.

- 47 Ryan, J. C., Cooper, M. G., Cooley, S. W., Rennermalm, Å. K., & Smith, L. C.: Meltwater ponding has an underestimated radiative effect on the surface of the Greenland Ice Sheet. *Nat. Comm.*, 16(1), 8274. <https://doi.org/10.1038/s41467-025-62503-5>, 2025.
- 46 Covi, F., Hock, R., Rennermalm, Å., Fettweis, X., and Noël, B.: Spatiotemporal variability of air temperature biases in regional climate models over the Greenland ice sheet, *J. Glaciol.*, 71, e64, <https://doi.org/10.1017/jog.2025.38>, 2025.
- 45 Vandecrux, B., Fausto, R. S., Box, J. E., Covi, F., Hock, R., Rennermalm, Å. K., Heilig, A., Abermann, J., As, D., Bjerre, E., Fettweis, X., Smeets, P. C. J. P., Munneke, P. K., Broeke, M. R., Brils, M., Langen, P. L., Mottram, R., Ahlstrøm, A. P. (2024). Recent warming trends of the Greenland ice sheet documented by historical firn and ice temperature observations and machine learning. *The Cryosphere*, 18(2), 609–631. <https://doi.org/10.5194/tc-18-609-2024>, 2024.
- 44 *Mattingly, K. S., Turton, J. V., Wille, J. D., Noël, B., Fettweis, X., Rennermalm, Å. K., and Mote, T. L.: Increasing extreme melt in northeast Greenland linked to foehn winds and atmospheric rivers, *Nat Commun*, 14, 1743, <https://doi.org/10.1038/s41467-023-37434-8>, 2023.
- 43 *Leidman, S. Z., Rennermalm, Å. K., *Muthyala, R., Skiles, S. M., and Getraer, A.: Intra-seasonal variability in supraglacial stream sediment on the Greenland Ice Sheet, *Front. Earth Sci.*, 11, 969629, <https://doi.org/10.3389/feart.2023.969629>, 2023.
- 42 *Xiao, J., Rennermalm, Å. K., Covi, F., Hock, R., *Leidman, S. Z., *Miège, C., MacFerrin, M. J., and Samimi, S.: Local-scale spatial variability in firn properties in Southwest Greenland, *Front. Earth Sci.*, 10, 938246, <https://doi.org/10.3389/feart.2022.938246>, 2022.
- 41 *Muthyala, R., Rennermalm, Å. K., *Leidman, S. Z., Cooper, M. G., Cooley, S. W., Smith, L. C., and van As, D.: Supraglacial streamflow and meteorological drivers from southwest Greenland, *The Cryosphere*, 16, 2245–2263, <https://doi.org/10.5194/tc-16-2245-2022>, 2022.
- 40 Cooper, M. G., Smith, L. C., Rennermalm, Å. K., Tedesco, M., Muthyala, R., *Leidman, S. Z., *Moustafa, S. E., and Fayne, J. V.: Spectral attenuation coefficients from measurements of light transmission in bare ice on the Greenland Ice Sheet, *The Cryosphere*, 15, 1931–1953, <https://doi.org/10.5194/tc-15-1931-2021>, 2021.
- 39 *Leidman, S. Z., Rennermalm, Å. K., Lathrop, R. G., and Cooper, M. G.: Terrain-Based Shadow Correction Method for Assessing Supraglacial Features on the Greenland Ice Sheet, *Front. Remote Sens.*, 2, 690474, 2021. <https://doi.org/10.3389/frsen.2021.690474>
- 38 *Leidman, S. Z., Rennermalm, Å. K., *Muthyala, R., Guo, Q., Overeem, I.: The Presence and Widespread Distribution of Dark Sediment in Greenland Ice Sheet Supraglacial Streams Implies Substantial Impact of Microbial Communities on Sediment Deposition and Albedo. *Geophysical Research Letters*, 48, e2020GL088444. <https://doi.org/10.1029/2020GL088444>, 2021
- 37 Pain, A. J., Martin, J. B., Martin, E. E., Rennermalm, Å. K., and Rahman, S.: Heterogeneous CO₂ and CH₄ content of glacial meltwater from the Greenland Ice Sheet and implications for subglacial carbon processes, *The Cryosphere*, 15, 1627–1644, <https://doi.org/10.5194/tc-15-1627-2021>, 2021.

- 36 Rennermalm, Å. K., Hock, R., Covi, F., *Xiao, J., Corti, G., Kingslake, J., *Leidman, S. Z., *Miège, C., Macferrin, M., Machguth, H., Osterberg, E., Kameda, T., and McConnell, J. R.: Shallow firn cores 1989–2019 in southwest Greenland’s percolation zone reveal decreasing density and ice layer thickness after 2012, *J. Glaciol.*, 1–12, <https://doi.org/10.1017/jog.2021.102>, 2021.
- 35 Smith, L. C., Andrews, L. C., Pitcher, L. H., Overstreet, B. T., Rennermalm, Å. K., Cooper, M. G., Cooley, S. W., Ryan, J. C., Miège, C., Kershner, C., and Simpson, C. E.: Supraglacial River Forcing of Subglacial Water Storage and Diurnal Ice Sheet Motion, *Geophys Res Lett*, 48, <https://doi.org/10.1029/2020GL091418>, 2021.
- 34 *Leidman, S. Z., Rennermalm, Å. K., Broccoli, A. J., van As, D., van den Broeke, M. R., Steffen, K., and Hubbard, A.: Methods for Predicting the Likelihood of Safe Fieldwork Conditions in Harsh Environments, *Front. Earth Sci.*, 8, 260, <https://doi.org/10.3389/feart.2020.00260>, 2020.
- 33 Castelao, R. M., Luo, H., Oliver, H., Rennermalm, Å. K., Tedesco, M., Bracco, A., Yager, P. L., Mote, T. L., and Medeiros, P. M.: Controls on the Transport of Meltwater From the Southern Greenland Ice Sheet in the Labrador Sea, *J. Geophys. Res. Oceans*, 124, 3551–3560, <https://doi.org/10.1029/2019JC015159>, 2019.
- 32 Deuerling, K. M., Martin, J. B., Martin, E. E., Abermann, J., Myreng, S. M., Petersen, D., and Rennermalm, Å. K.: Chemical weathering across the western foreland of the Greenland Ice Sheet, *Geochimica et Cosmochimica Acta*, 245, 426–440, <https://doi.org/10.1016/j.gca.2018.11.025>, 2019.
- 31 *Berdahl, M., Rennermalm, Å., *Hammann, A., *Mioduszewski, J., Hameed, S., Tedesco, M., Stroeve, J., Mote, T., Koyama, T., and McConnell, J. R.: Southeast Greenland Winter Precipitation Strongly Linked to the Icelandic Low Position, *J. Climate*, 31, 4483–4500, <https://doi.org/10.1175/JCLI-D-17-0622.1>, 2018.
- 30 Cooper, M. G., Smith, L. C., Rennermalm, Å. K., Miège, C., Pitcher, L. H., Ryan, J. C., Yang, K., and Cooley, S. W.: Meltwater storage in low-density near-surface bare ice in the Greenland ice sheet ablation zone, *The Cryosphere*, 12, 955–970, <https://doi.org/10.5194/tc-12-955-2018>, 2018.
- 29 Oliver, H., Luo, H., Castelao, R. M., van Dijken, G. L., Mattingly, K. S., Rosen, J. J., Mote, T. L., Arrigo, K. R., Rennermalm, Å. K., Tedesco, M., and Yager, P. L.: Exploring the Potential Impact of Greenland Meltwater on Stratification, Photosynthetically Active Radiation, and Primary Production in the Labrador Sea, *JGR Oceans*, 123, 2570–2591, <https://doi.org/10.1002/2018JC013802>, 2018.
- 28 Arrigo, K. R., van Dijken, G. L., Castelao, R. M., Luo, H., Rennermalm, Å. K., Tedesco, M., Mote, T. L., Oliver, H., and Yager, P. L.: Melting glaciers stimulate large summer phytoplankton blooms in southwest Greenland waters, *Geophysical Research Letters*, 44, 6278–6285, <https://doi.org/10.1002/2017GL073583>, 2017.
- 27 *Moustafa, S. E., Rennermalm, Å. K., Román, M. O., Wang, Z., Schaaf, C. B., Smith, L. C., Koenig, L. S., and Erb, A.: Evaluation of satellite remote sensing albedo retrievals over the ablation area of the southwestern Greenland ice sheet, *Remote Sensing of Environment*, 198, 115–125, <https://doi.org/10.1016/j.rse.2017.05.030>, 2017.

- 26 Ryan, J. C., Hubbard, A., Box, J. E., Brough, S., Cameron, K., Cook, J. M., Cooper, M., Doyle, S. H., Edwards, A., Holt, T., Irvine-Fynn, T., Jones, C., Pitcher, L. H., Rennermalm, Å. K., Smith, L. C., Stibal, M., and Snooke, N.: Derivation of High Spatial Resolution Albedo from UAV Digital Imagery: Application over the Greenland Ice Sheet, *Front. Earth Sci.*, 5, 40, <https://doi.org/10.3389/feart.2017.00040>, 2017.
- 25 Smith, L. C., Yang, K., Pitcher, L. H., Overstreet, B. T., Chu, V. W., Rennermalm, Å. K., Ryan, J. C., Cooper, M. G., Gleason, C. J., Tedesco, M., Jeyaratnam, J., van As, D., van den Broeke, M. R., van de Berg, W. J., Noël, B., Langen, P. L., Cullather, R. I., Zhao, B., Willis, M. J., Hubbard, A., Box, J. E., Jenner, B. A., and Behar, A. E.: Direct measurements of meltwater runoff on the Greenland ice sheet surface, *Proc Natl Acad Sci USA*, 114, E10622–E10631, <https://doi.org/10.1073/pnas.1707743114>, 2017.
- 24 Stroeve, J. C., *Mioduszewski, J. R., Rennermalm, Å. K., Boisvert, L. N., Tedesco, M., and Robinson, D.: Investigating the local-scale influence of sea ice on Greenland surface melt, *The Cryosphere*, 11, 2363–2381, <https://doi.org/10.5194/tc-11-2363-2017>, 2017.
- 23 Gleason, C. J., Smith, L. C., Chu, V. W., Legleiter, C. J., Pitcher, L. H., Overstreet, B. T., Rennermalm, Å. K., Forster, R. R., and Yang, K.: Characterizing supraglacial meltwater channel hydraulics on the Greenland Ice Sheet from in situ observations: Characterizing Supraglacial Channel Hydraulics in the Field, *Earth Surf. Process. Landforms*, 41, 2111–2122, <https://doi.org/10.1002/esp.3977>, 2016.
- 22 Luo, H., Castelao, R. M., Rennermalm, Å. K., Tedesco, M., Bracco, A., Yager, P. L., and Mote, T. L.: Oceanic transport of surface meltwater from the southern Greenland ice sheet, *Nature Geosci*, 9, 528–532, <https://doi.org/10.1038/ngeo2708>, 2016.
- 21 *Mioduszewski, J. R., Rennermalm, Å. K., *Hammann, A., Tedesco, M., Noble, E. U., Stroeve, J. C., and Mote, T. L.: Atmospheric drivers of Greenland surface melt revealed by self-organizing maps, *J. Geophys. Res. Atmos.*, 121, 5095–5114, <https://doi.org/10.1002/2015JD024550>, 2016.
- 20 Yang, K., Smith, L. C., Chu, V. W., Pitcher, L. H., Gleason, C. J., Rennermalm, Å. K., and Li, M.: Fluvial morphometry of supraglacial river networks on the southwest Greenland Ice Sheet, *GIScience & Remote Sensing*, 53, 459–482, <https://doi.org/10.1080/15481603.2016.1162345>, 2016.
- 19 *Mioduszewski, J. R., Rennermalm, Å. K., Robinson, D. A., and Wang, L.: Controls on Spatial and Temporal Variability in Northern Hemisphere Terrestrial Snow Melt Timing, 1979–2012, *Journal of Climate*, 28, 2136–2153, <https://doi.org/10.1175/JCLI-D-14-00558.1>, 2015.
- 18 *Moustafa, S. E., Rennermalm, Å. K., Smith, L. C., Miller, M. A., *Mioduszewski, J. R., Koenig, L. S., Hom, M. G., and Shuman, C. A.: Multi-modal albedo distributions in the ablation area of the southwestern Greenland Ice Sheet, *The Cryosphere*, 9, 905–923, <https://doi.org/10.5194/tc-9-905-2015>, 2015.
- 17 Smith, L. C., Chu, V. W., Yang, K., Gleason, C. J., Pitcher, L. H., Rennermalm, Å. K., Legleiter, C. J., Behar, A. E., Overstreet, B. T., *Moustafa, S. E., Tedesco, M., Forster, R. R., LeWinter, A. L., Finnegan, D. C., Sheng, Y., and Balog, J.: Efficient meltwater drainage through supraglacial streams and rivers on the southwest Greenland ice sheet, *Proc. Natl. Acad. Sci. U.S.A.*, 112, 1001–1006, <https://doi.org/10.1073/pnas.1413024112>, 2015.

- 16 *Mioduszewski, J. R., Rennermalm, Å. K., Robinson, D. A., and Mote, T. L.: Attribution of snowmelt onset in Northern Canada, *J. Geophys. Res. Atmos.*, 119, 9638–9653, <https://doi.org/10.1002/2013JD021024>, 2014.
- 15 Tedesco, M., Box, J. E., Cappelen, J., Fettweis, X., Jensen, T. S., Mote, T., Rennermalm, Å. K., Smith, L. C., van de Wal, R. S. W., and Wahr, J.: The Arctic: Greenland Ice Sheet in “State of the Climate 2013.” *Bulletin of the American Meteorological Society*, 95, S136–S137, <https://doi.org/10.1175/2014BAMSStateoftheClimate.1>, 2014
- 14 Rennermalm, Å. K., *Moustafa, S. E., *Mioduszewski, J., Chu, V. W., Forster, R. R., Hagedorn, B., Harper, J. T., Mote, T. L., Robinson, D. A., Shuman, C. A., Smith, L. C., and Tedesco, M.: Understanding Greenland ice sheet hydrology using an integrated multi-scale approach, *Environ. Res. Lett.*, 8, 015017, <https://doi.org/10.1088/1748-9326/8/1/015017>, 2013.
- 13 Rennermalm, Å. K., Smith, L. C., Chu, V. W., Box, J. E., Forster, R. R., Van den Broeke, M. R., Van As, D., and *Moustafa, S. E.: Evidence of meltwater retention within the Greenland ice sheet, *The Cryosphere*, 7, 1433–1445, <https://doi.org/10.5194/tc-7-1433-2013>, 2013.
- 12 Chu, V. W., Smith, L. C., Rennermalm, Å. K., Forster, R. R., and Box, J. E.: Hydrologic controls on coastal suspended sediment plumes around the Greenland Ice Sheet, *The Cryosphere*, 6, 1–19, <https://doi.org/10.5194/tc-6-1-2012>, 2012.
- 11 Rennermalm, Å. K., Bring, A., and Mote, T. L.: Spatial and Scale-Dependent Controls on North American Pan-Arctic Minimum River Discharge, *Geogr Anal*, 44, 202–218, <https://doi.org/10.1111/j.1538-4632.2012.00849.x>, 2012.
- 10 Rennermalm, Å. K., Smith, L. C., Chu, V. W., Forster, R. R., Box, J. E., and Hagedorn, B.: Proglacial river stage, discharge, and temperature datasets from the Akuliarusiarsuup Kuua River northern tributary, Southwest Greenland, 2008–2011, *Earth Syst. Sci. Data*, 4, 1–12, <https://doi.org/10.5194/essd-4-1-2012>, 2012.
- 9 Rennermalm, Å. K., Nordbotten, J. M., and Wood, E. F.: Hydrologic variability and its influence on long-term peat dynamics, *Water Resour. Res.*, 46, <https://doi.org/10.1029/2009WR008242>, 2010.
- 8 Rennermalm, Å. K., Wood, E. F., and Troy, T. J.: Observed changes in pan-arctic cold-season minimum monthly river discharge, *Clim Dyn*, 35, 923–939, <https://doi.org/10.1007/s00382-009-0730-5>, 2010.
- 7 Chu, V. W., Smith, L. C., Rennermalm, Å. K., Forster, R. R., Box, J. E., and Reeh, N.: Sediment plume response to surface melting and supraglacial lake drainages on the Greenland ice sheet, *J. Glaciol.*, 55, 1072–1082, <https://doi.org/10.3189/002214309790794904>, 2009.
- 6 Rennermalm, Å. K., Smith, L. C., Stroeve, J. C., and Chu, V. W.: Does sea ice influence Greenland ice sheet surface-melt?, *Environ. Res. Lett.*, 4, 024011, <https://doi.org/10.1088/1748-9326/4/2/024011>, 2009.
- 5 Grøndahl, L., Friberg, T., Christensen, T. R., Ekberg, A., Elberling, B., Illeris, L., Nordstrøm, C., Rennermalm, Å., Sigsgaard, C., and Søgaard, H.: Spatial and Inter-Annual Variability of Trace Gas Fluxes in a Heterogeneous High-Arctic Landscape, in: *Advances in Ecological Research*, vol. 40, Academic Press, 473–498, [https://doi.org/10.1016/S0065-2504\(07\)00020-7](https://doi.org/10.1016/S0065-2504(07)00020-7), 2008.

- 4 Rennermalm, Å. K., Wood, E. F., Weaver, A. J., Eby, M., and Déry, S. J.: Relative sensitivity of the Atlantic meridional overturning circulation to river discharge into Hudson Bay and the Arctic Ocean: AMOC Sensitivity to Arctic Runoff, *J. Geophys. Res.*, 112, <https://doi.org/10.1029/2006JG000330>, 2007.
- 3 Rennermalm, Å. K., Wood, E. F., Déry, S. J., Weaver, A. J., and Eby, M.: Sensitivity of the thermohaline circulation to Arctic Ocean runoff, *Geophys. Res. Lett.*, 33, L12703, <https://doi.org/10.1029/2006GL026124>, 2006.
- 2 Déry, S. J., Stieglitz, M., Rennermalm, Å. K., and Wood, E. F.: The Water Budget of the Kuparuk River Basin, Alaska, *Journal of Hydrometeorology*, 6, 633–655, <https://doi.org/10.1175/JHM434.1>, 2005.
- 1 Rennermalm, Å. K., Soegaard, H., and Nordstroem, C.: Interannual Variability in Carbon Dioxide Exchange from a High Arctic Fen Estimated by Measurements and Modeling, *Arctic, Antarctic, and Alpine Research*, 37, 545–556, [https://doi.org/10.1657/1523-0430\(2005\)037\[0545:IVICDE\]2.0.CO;2](https://doi.org/10.1657/1523-0430(2005)037[0545:IVICDE]2.0.CO;2), 2005.

Articles and Reports in Non-Refereed or General Publications

- 4 Holzer, M. and Rennermalm, Å. K.: Arctic Happenings – Global Impacts of the Melting Greenland Ice Sheet and Melting Sea Ice, *The Earth Scientist*, 12–17, 2019.
- 3 Tedesco, M., Alexander, P., Bell, R., Briggs, K., Das, I., MacFerrin, M., Hanna, E., Koenig, L., Overeem, I., Rennermalm, Å. K.: Understanding the fundamental processes controlling the surface mass balance of the Greenland ice sheet and improving estimates, Workshop Report, LDEO – Columbia University, 2016.
- 2 Tedesco, M., Box, J. E., Cappelen, J., Fettweis, X., Jensen, T. S., Mote, T., Rennermalm, Å. K., Smith, L. C., Van De Wal, R. S. W., and Wahr, J.: Greenland Ice Sheet, in: *Arctic Report Card 2013*, 115–125, 2013.
- 1 Rennermalm, Å. K., *Mioduszewski, J., and *Moustafa, S.: Breaking the ice: Theorizing the mechanisms of Arctic thaw, *Eos Trans. AGU*, 93, 416–416, <https://doi.org/10.1029/2012E0420006>, 2012.

Datasets in Research Data Repositories

- 19 *Leidman, S. and Rennermalm, A.: GPS and Water Depth Measurements of the Thalweg of a Supraglacial Stream in Southwest Greenland, 2019, <https://doi.org/10.18739/A22R3NZ8S>, 2024.
- 18 Vandecrux, B., Amory, C., Ahlstrøm, A. P., ..., Rennermalm, Å. K., et al: The SUMup collaborative database: Surface mass balance, subsurface temperature and density measurements from the Greenland and Antarctic ice sheets (2024 release), 2024. <https://doi.org/10.18739/A2M61BR5M>
- 17 *Leidman, S., Rennermalm, A., and Skiles, M.: Reflectance measurements from within and around a supraglacial stream in Southwest Greenland (67.15N, 50.00W) collected in August 2019, <https://doi.org/10.18739/A29G5GF85>, 2023.
- 16 *Leidman, S., Rennermalm, Å., Skiles, S. M., and *Muthyala, R.: Water Stage and Discharge of a Supraglacial Stream in Southwest Greenland (67.15N, 50.00W) Each Minute from July 13, 2019 to August 10, 2019, <https://doi.org/10.18739/A2D795C35>, 2023.

- 15 Covi, F., Hock, R., Rennermalm, A., *Leidman, S., Miede, C., Kingslake, J., Xiao, J., MacFerrin, M., and Tedesco, M.: Meteorological and firn temperature data from three weather stations in the percolation zone of southwest Greenland, 2017 - 2019, <https://doi.org/10.18739/A2BN9X444>, 2022.
- 14 *Xiao, J., Covi, F., Rennermalm, Å. K., and Hock, R.: Resampled density in 48 shallow firn cores from Southwest Greenland, 2012–2019, <https://doi.org/10.18739/A2CZ3263B>, 2022.
- 13 *Muthyala, R., Rennermalm, Å. K., *Leidman, S., Cooper, M., Cooley, S., and Smith, L.: 62 days of Supraglacial streamflow from June–August, 2016 over southwest Greenland, Arctic Data Center, <https://doi.org/10.18739/A2XW47X5F>, 2022.
- 12 Cooper, M. G., Smith, L. C., Rennermalm, Å. K., Tedesco, M., *Muthyala, R., *Leidman, S. Z., *Moustafa, S. E., and Fayne, J. V.: Optical attenuation coefficients of glacier ice from 350–700 nm and raw irradiance values from 350–900 nm, PANGAEA, <https://doi.org/10.1594/PANGAEA.930278>, 2021.
- 11 Rennermalm, Å. K., Hock, R., Covi, F., *Xiao, J., Corti, G., *Leidman, S., *Miede, C., Kingslake, J., MacFerrin, M., and Tedesco, M.: Density and ice layer stratigraphy in 24 shallow firn cores from Southwest Greenland, 2017 - 2019, Arctic Data Center, <https://doi.org/10.18739/A2VH5CK05>, 2021.
- 10 Rennermalm, Å. K., Osterberg, E., Hock, R., *Xiao, J., Covi, F., *Leidman, S., MacFerrin, M., *Muthyala, R., and Tedesco, M.: Age-depth data and chemistry from a shallow firn core collected in Southwest Greenland, 2018, Arctic Data Center, <https://doi.org/10.18739/A2086365J>, 2021.
- 9 Fettweis, X. and Rennermalm, Å. K.: Model simulations from Modèle Atmosphérique Regionale (MAR) over Greenland, 1948–2016, Arctic Data Center, <https://doi.org/10.18739/A2H12V80V>, 2020.
- 8 *Hammann, A. and Rennermalm, Å. K., Bias-corrected precipitation estimates for seven locations on Greenland's east and south coasts, 1958–2013, Arctic Data Center, <https://doi.org/10.18739/A2ZC7RV13>, 2020.
- 7 Holzer, M., Rennermalm, Å. K., Sinclair, P., and Fettweis, X.: Educational Module: Arctic Happenings - Global Impacts of the Melting Greenland Ice Sheet and Melting Sea Ice, 1961–2015, Arctic Data Center, <https://doi.org/10.18739/A2TM7216N>, 2020.
- 6 *Leidman, S., Rennermalm, Å. K., *Muthyala, R., Overeem, I., Guo, Q., and Chu, V.: Unmanned aerial vehicle (UAV) imagery and digital elevation model (DEM) of a supraglacial stream in southwest Greenland (67.153 N, -50.000 W) as well as classification raster of sediment covered areas, water depth raster, stage timeseries, and time-lapse video 2017, Arctic Data Center, <https://doi.org/10.18739/A2WH2DG0D>, 2020.
- 5 Cooper, M. G., Smith, L. C., Rennermalm, Å. K., Pitcher, L., Ryan, J. C., Yang, K., and Cooley, S. W.: Direct measurements of ice density at 1m depth in the Greenland Ice Sheet ablation zone during July 2016 from shallow ice cores, PANGAEA, <https://doi.org/10.1594/PANGAEA.886748>, 2018.
- 4 Rennermalm, A. K., Smith, L. C., *Hammann, A. C., Leidman, S. Z., Cooper, M. G., Cooley, S. W., and Pitcher, L.: River discharge at station AK-004-001, 2008 - 2016, version 3.0, PANGAEA, <https://doi.org/10.1594/PANGAEA.876357>, 2017.

- 3 *Moustafa, S. E., Rennermalm, Å. K., *Mioduszewsk, J. R., and Smith, L. C.: Spectral and broadband albedo transects in the lower ablation zone, Southwest Greenland, June 2013, PANGAEA, <https://doi.org/10.1594/PANGAEA.867917>, 2016.
- 2 Rennermalm, Å. K., Smith, L. C., Chu, V. W., *Moustafa, S. E., Pitcher, L., and Gleason, C.: Proglacial river dataset from the Akuliarusiarsuup Kuua River northern tributary, Southwest Greenland, 2008 - 2013, Version 2.0, PANGAEA, <https://doi.org/10.1594/PANGAEA.838812>, 2014.
- 1 Rennermalm, Å. K., Smith, L. C., Chu, V. W., Forster, R. R., Box, J. E., and Hagedorn, B.: Proglacial river dataset from the Akuliarusiarsuup Kuua River northern tributary, Southwest Greenland, 2008 - 2010, version 1.0, PANGAEA, <https://doi.org/10.1594/PANGAEA.762818>, 2012.

Research Fieldwork

Hydrometeorological and glaciological studies, Kangerlussuaq and Camp Raven/Dye-2 area, Southwest Greenland, 2008 – 2013, 2015 – 2019, 2023-2025 (canceled due to COVID in 2020 – 2022).

Micrometeorological studies. Toolik Lake Research Station, Alaska, 2003.

Micrometeorological studies. Zackenberg Ecological Research Station, Greenland, 1998, 1999.

Public Engagements and Media

- 2026 The Atlantic, “The Blind Spot at the Top of the World,” interview by Brett Simpson, February 13, 2026. [link](#)
- 2026 High North News, “U.S. Researcher Warns Europe: ‘You Are Only an Election Away’,” interview by Trine Jonassen, February 10, 2026. [link](#)
- 2026 El Periódico de la Energía, “El Dorado Ártico: lo que sabemos (y lo que no) sobre los recursos de Groenlandia que codicia EEUU.,” interview, Jan 12, 2026. [link](#)
- 2025 Sierra Magazine, “The End of an Era for Arctic Research,” interview, Oct 2025. [link](#)
- 2025 Nature, “Sexual harassment is rife at US Antarctic research bases,” interview, Aug 2025. [link](#)
- 2025 TIME, “Why Climate Change is Making Greenland Desirable to Trump,” interview, Mar 2025. [link](#)
- 2025 Trouw, interview (Dutch), Feb 2025. [link](#)
- 2025 National Sawdust, Meltdown music theater premiere, scientific advisor, Feb 2025. [link](#)
- 2024 Nature Water, “Unearthing the frozen frontiers,” interview, Jul 2024. [link](#)
- 2021 Field of Vision, Utuqaq (film by Iva Radivojevic), featured scientist, 2021. [link](#)
- 2021 Science Friday, “Greenland’s Microbial Melt-Down,” interview, Jan 2021. [link](#)
- 2020 PBS NOVA Polar Lab, “Meet the Experts,” feature, Feb 2020. [link](#)
- 2019 NRC Handelsblad, “Glijden Op Het Smeltende Ijs van Groenland,” interview, Oct 2019. [link](#)
- 2018 News 12 New Jersey, interview, Nov 2018. [link](#)

- 2018 National Geographic, “Greenland’s ice sheets hold clues to global sea-level rise,” interview, Oct 2018. [link](#)
- 2018 Mission: Water Magazine, “On Ice,” feature, 2018.
- 2017 Rutgers Today, interview, Oct 2017.
- 2017 Phys.org, interview, Dec 2017. [link](#)
- 2016 U.S. State Department Blog, feature, Feb 2016. [link](#)
- 2015 The New York Times, “Greenland is Melting Away,” interview, Oct 2015.
- 2014 Daily Targum, interview, Nov 2014.
- 2014 90.3 The Core (Rutgers Radio), radio interview, Jan 2014.
- 2014 WHYY The Pulse, “Documenting Climate Change through Art,” radio interview, Mar 2014. [link](#)
- 2014 World Policy Blog, interview, Sep 2014.
- 2013 Rutgers Program in Digital Filmmaking, North Pole Now (student film), 2013.
- 2012 Kalaallit Nunaata Radioa (Greenlandic Broadcasting Corporation), radio interview, Jul 2012.
- 2012 International Business Times, interview, Aug 2012.
- 2012 China Central Television America, interview, Dec 2012.
- 2011 New York Times and Scientific American, “Probing a Glacier as It Thaws,” interview, Aug 2011.
- 2011 Associated Press (syndicated nationally), “On Endless Ice, Searching for Clues to Our Future,” interview, Aug 2011.

Scholarly Activity

INVITED ADDRESSES

- 2026 Arctic Frontiers, “The State of the Arctic,” Panelist, Tromsø, Norway, 2026.
- 2024 College of Staten Island, The City University of New York, GIS day, Mapping the Meltdown. Insights from Greenland’s Ice Sheet, Staten Island, NY, 2024.
- 2024 Bard College, Deans Lecture, Witnessing Climate Change, Why Greenland ice sheet matters for all of us, Queens, NY, 2024.
- 2023 College of Staten Island, The City University of New York, GIS day, Meltdown in the Arctic. Why Greenland ice sheet matters for all of us, Staten Island, NY, 2023.
- 2022 University of Delaware, Sustainability Development Goals Seminar Series, Witnessing Climate Change: What I have learned from my expeditions to the Greenland ice sheet, Newark, DE, 2022.
- 2022 Montclair State University Sustainability Seminar Series, Witnessing Climate Change: What I have learned from my expeditions to the Greenland ice sheet, Montclair, NJ, 2022.
- 2021 National Snow and Ice Data Center Cryosphere Seminar, Decreasing density and ice layer volume in near-surface firn in southwest Greenland’s percolation zone, 2012-2019, Boulder, CO, 2021.

- 2020 NASA GISS, Spatial and temporal patterns in ice layers in firn in southwest Greenland's percolation zone, 1989-2017, Virtual seminar series, 2020.
- 2020 University of Colorado, Boulder, Institute for Arctic and Alpine Research, Following the water on the Greenland ice sheet: Re-freezing in firn, supraglacial streams & river, Boulder, 2020.
- 2020 Princeton University, Plasma Physics Laboratory, Witnessing climate change: What I have learned from my expeditions to the Greenland ice sheet, Science on Saturday seminar series, Princeton, NJ, 2020.
- 2019 University of Delaware, Department of Geography, Meltdown in the Arctic: A perspective from the Greenland Ice Sheet. Newark, DE, 2019.
- 2019 American Geophysical Union, Fall Meeting, Spatial and temporal trends in ice lenses in Southwest Greenland, 1989-2017, San Francisco, CA, 2019.
- 2019 University of California Los Angeles, Department of Geography, Meltdown in the Arctic: A perspective from the Greenland Ice Sheet. Los Angeles, CA, 2019.
- 2018 Lehigh University, Department of Earth and Environmental Sciences, Greenland ice sheet melting: What happens with all the water?. Bethlehem, PA, 2018.
- 2017 University of Florida, Department of Geological Sciences, Greenland Ice Sheet Melting Away. Gainesville, FL, 2017.
- 2017 University of Connecticut, Department of Geography, Greenland Ice Sheet Melting Away. Storrs, CT, 2017.
- 2016 Clark University, Department of Geography, Is Greenland Melting Away, Worcester, MA, 2016.
- 2016 Temple University, Department of Earth and Environment, Is Greenland Melting Away, Philadelphia, PA, 2016.
- 2016 American Geophysical Union, Fall Meeting, Understanding Greenland Ice Sheet Runoff Losses. San Francisco, CA, 2016.
- 2015 American Geophysical Union, Fall Meeting, What Terrestrial Glacial Meltwater Streams Reveal about Greenland Ice Sheet Hydrology. San Francisco, CA, 2015.
- 2015 University of Massachusetts Amherst, Department of Geoscience, Greenland Ice Sheet Meltwater Export and River Discharge, Amherst, MA, 2015.
- 2015 Geophysical Fluid Dynamics Laboratory, U.S. Department of Commerce/NOAA/OAR, Greenland Ice Sheet Meltwater Export and River Discharge. Princeton, NJ, 2015.
- 2014 Montclair State University, Department of Earth and Environmental Studies, Greenland Ice Sheet Meltwater Export and River Discharge. Montclair, NJ, 2014.
- 2014 Stony Brook University, Institute for Terrestrial and Planetary Atmospheres, Greenland Ice Sheet Meltdown, Stony Brook, NY, 2014.
- 2014 The City College of New York, Department of Earth and Atmospheric Sciences, Greenland Ice Sheet Meltwater Export and River Discharge. New York, NY, 2014.
- 2014 University of Georgia, Department of Geography, Greenland Ice Sheet Meltdown: A Perspective from the Ground. Athens, GA, 2014.

- 2013 City University New York, Earth and Environmental Sciences GEOS Seminar Series, Arctic Climate Change and The Greenland Ice Sheet. New York, NY, 2013.
- 2013 Columbia University, White Arctic, Blue Arctic Workshop, Greenland Ice Sheet and Sea Ice. New York, NY, 2013.
- 2013 Princeton University, Department of Geoscience, Greenland Ice Sheet Meltdown: A Perspective from the Ground. Princeton, NJ, 2013.
- 2013 Syracuse University, Department of Geography Colloquium, Greenland Ice Sheet Meltdown: How Climate Change in the Arctic May Affect All of Us, Syracuse, NY, 2013.
- 2013 University of Northern British Columbia, Natural Resources and Environment Studies Research Colloquium Series, Greenland Ice Sheet Meltdown: A Perspective from the Ground, Prince George, Canada, 2013.
- 2012 American Geophysical Union, Fall Meeting, Evidence of Meltwater Retention within the Greenland Ice Sheet, San Francisco, CA, 2012.
- 2012 University of Colorado, Institute of Arctic and Antarctic Research, Evidence for Meltwater Retention within the Greenland Ice Sheet, Boulder, CO, 2012.
- 2012 University of Kansas, Center for Remote Sensing of Ice Sheets, Evidence of Meltwater Retention within the Greenland Ice Sheet. Kansas City, KS, 2012.
- 2010 Institute of Global Environment and Society, Center of Ocean-Land-Atmosphere Studies, Greenland Meltwater Export, Calverton, MD, 2010.
- 2008 American Geophysical Union, Fall Meeting, The Influence of Hydrologic Variability on Peatland Dynamics, San Francisco, CA, 2008.

LECTURES AND PAPER PRESENTATIONS AT CONFERENCES AND SYMPOSIA

- 2025 Arctic Circle, Arctic Critical Minerals and Energy Transition: Rock Solid or Icy Prospects?, Panelist, Reykjavik, 2025
- 2025 Greenland Science Week, The Ice Sheet and Climate Change: What I Have Learned Through Fieldwork Near Kangerlussuaq, Sisimiut, Greenland, 2025
- 2024 American Geophysical Union, Annual Meeting, Meltdown A Music-Theater Exploration of Climate Change and Women in Science, Washington D.C., 2024.
- 2024 American Geophysical Union, Annual Meeting, Mapping Greenland's Hidden Ice Slabs The Influence of Surface Slope, Washington D.C., 2024.
- 2023 American Geophysical Union, Fall Meeting, Greenland ice sheet meltwater export from a small land terminating glacier, San Francisco, CA, 2022.
- 2023 American Association of Geographers Annual Meeting, Greenland ice sheet meltwater export from a small land terminating glacier, Denver, CO, 2023.
- 2022 American Geophysical Union, Fall Meeting, Designing a Physical Geography Field Course to Improve Accessibility and Inclusion for All Students, Chigaco, IL, 2022.
- 2020 American Association of Geographers Annual Meeting, Spatial and temporal trends in ice layers in firn in southwest Greenland's percolation zone, 1989-2017, Virtual meeting, 2020.
- 2019 American Geophysical Union, Fall Meeting, Spatial and temporal trends in ice lenses in Southwest Greenland, 1989-2017, San Francisco, CA, 2019.

- 2019 Israel Academy of Sciences and Humanities - U.S. National Academy of Sciences, Fourth Israeli-American Kavli Frontiers of Science Symposium, Meltdown in the Arctic: A perspective from the Greenland Ice Sheet, Jerusalem, Israel, 2019.
- 2019 American Association of Geographers Annual Meeting, Increased Meltwater Refreezing in Southwest Greenland Ice Sheet Firn between 1989 and 2017, Washington D.C., 2019.
- 2019 National Aeronautics and Space Administration Goddard Space Flight Center, Program for Arctic Regional Climate Assessment, Greenland Ice Sheet Runoff in Models and Proglacial Observations. Greenbelt, MD, 2019.
- 2018 American Association of Geographers Middle state's Annual Meeting, Meltwater Refreezing in Southwest Greenland Ice Sheet Firn 1989 to 2017, Montclair, NJ, 2018.
- 2017 American Geophysical Union, Fall Meeting, Spatiotemporal Variability of Meltwater Refreezing in Southwest Greenland Ice Sheet Firn, New Orleans, LA, 2017.
- 2017 American Association of Geographers, Annual Meeting, Greenland Freshwater Export to Surrounding Oceans, Boston, MA, 2017.
- 2016 National Aeronautics and Space Administration Goddard Space Flight Center, Program for Arctic Regional Climate Assessment, Greenland Ice Sheet Meltwater Freshwater Export to Surrounding Oceans, Greenbelt, MD, 2017.
- 2016 National Aeronautics and Space Administration Goddard Space Flight Center, Program for Arctic Regional Climate Assessment, Greenland Ice Sheet Meltwater Export to Oceans, Greenbelt, MD, 2016.
- 2015 International Glaciological Society, International Symposium on the Hydrology of Glaciers and Ice Sheets, Spatial Variation of Greenland Ice Sheet Meltwater Export Inferred from River Discharge Observations, Hofn, Iceland, 2015.
- 2015 Association of American Geographers, Annual Meeting, Greenland Ice Sheet Meltwater Export from a Land Terminating Glacier, 2008 - 2014, Chicago, IL, 2015.
- 2014 American Geophysical Union, Fall Meeting, Polar Perspectives on Art and Science, San Francisco, CA, 2014.
- 2014 Association of American Geographers, Annual Meeting, Greenland Rivers and Ice Sheet Meltwater Export to Surrounding Oceans, Tampa, FL, 2014.
- 2014 National Aeronautics and Space Administration Goddard Space Flight Center, Program for Arctic Regional Climate Assessment. Spatial Distribution of Ice Sheet Meltwater Export and Retention in Southwest Greenland from In Situ Observations. Greenbelt, Maryland, 2014
- 2013 Association of American Geographers, Annual Meeting, Greenland Ice Sheet Hydrology Inferred from River Discharge in Nested Basins, Los Angeles, CA, 2013.
- 2013 National Aeronautics and Space Administration Goddard Space Flight Center, Program for Arctic Regional Climate Assessment, Greenland's Supra and Proglacial Rivers. Greenbelt, MD, 2013.
- 2013 National Aeronautics and Space Administration Goddard Space Flight Center, Surface Mass Balance and Snow on Sea Ice Working Group. In Situ Measurements of Supra- and Proglacial River Streams. Greenbelt, MD, 2013.

- 2012 Association of American Geographers, Annual Meeting, Controls on Greenland Ice Sheet Runoff to the Ocean, New York, NY, 2012,
- 2012 National Aeronautics and Space Administration Goddard Space Flight Center, Program for Arctic Regional Climate Assessment. Towards Understanding Greenland Hydrology. Greenbelt, MD, 2012.
- 2012 Rutgers, The State University of New Jersey, Department of Geography Sixth MaGrann Symposium: Breaking the Ice: Theorizing the Mechanisms of Arctic Thaw, Evidence for Meltwater Retention Within the Greenland Ice Sheet, New Brunswick, NJ, 2012.
- 2011 American Meteorological Society, 11th Conference on Polar Meteorology and Oceanography, Observed Changes in Pan-arctic Cold-season Minimum Monthly River Discharge, Boston, MA, 2011.
- 2010 Association of American Geographers, Annual Meeting, Southwest Greenland Ice Sheet Surface Melt Examined with a Linear Reservoir Network Model and Stream Flow Observations, Washington, D. C., 2010.
- 2010 University of Washington, Steve Burgess Retirement Symposium, Observed Changes in Pan-arctic Cold-season Minimum Monthly River Discharge, Seattle, WA, 2010
- 2009 American Geophysical Union, Fall Meeting, Meltwater Export from the Greenland Inland Ice Investigated with Stream Observation and a Linear Reservoir Network Model, San Francisco, CA, 2009.
- 2009 Association of American Geographers, Annual Meeting, Influence of Sea Ice on Greenland Ice Sheet Surface Melt, Las Vegas, NV, 2009.
- 2008 American Geophysical Union, Fall Meeting, Local Sea Ice Influence on Greenland Surface Melt, San Francisco, CA, 2008.
- 2008 European Geoscience Union, General Assembly, Hydrological Variability and Peatland Functioning, Vienna, Austria, 2008.
- 2008 Max-Planck Institute for Biogeochemistry, Northern Eurasian Earth Science Partnership Initiative Workshop, River Discharge in the NEESPI Region: Trends in Mean and Extreme Flow, Jena, Germany, 2008.
- 2007 American Geophysical Union, Fall Meeting, Hydrologic Variability and its Influence on Peatland Dynamics, San Francisco, CA, 2007.
- 2007 International Arctic Research Center at University of Alaska Fairbanks, Eurasian Hydroclimatology Workshop. Observations, Change, Attribution, and Impacts. Pan-arctic Change and Global Feedbacks, Fairbanks, AK, 2007.
- 2006 American Geophysical Union, Fall Meeting, Regional Patterns of Trends and Multi-decadal Variability in Pan-Arctic River Runoff, San Francisco, CA, 2006.

POSTER PRESENTATIONS (FIRST AUTHOR ONLY)

- 2025 Greenland Science Week, Hidden Ice Slabs in Southwest Greenland, Nuuk, Greenland, 2025
- 2018 American Geophysical Union, Fall Meeting, Meltwater Refreezing in Southwest Greenland Ice Sheet Firn: Spatial Variability and Temporal Change Between 1989 and 2017, Washington, D.C., 2018.

- 2018 Lamont Doherty Earth Observatory, Workshop on Antarctic Surface Hydrology and Future Ice Shelf Stability, Spatiotemporal Variability of Meltwater Refreezing in Southwest Greenland Ice Sheet Firn, Palisades, NY, 2018.
- 2017 Geological Survey of Denmark and Greenland. Workshop on Modeling Meltwater in Snow and Firn: Processes, Validation, Intercomparison and Model Uses of Optical Remotely Sensed Data, Spatiotemporal Variability of Meltwater Refreezing in Southwest Greenland Ice Sheet Firn, Copenhagen, Denmark, 2017.
- 2015 Ilulissat Climate Days, Greenland Ice Sheet Meltwater Export and River Discharge, Ilulissat, Greenland, 2014.
- 2014 American Geophysical Union, Fall Meeting, Greenland Ice Sheet Meltwater Export and River Discharge, San Francisco, CA, 2014.
- 2013 American Geophysical Union, Fall Meeting, In Situ Data Suggest Supra-, En- and/or Subglacial Meltwater Retention in Southwest Greenland. San Francisco, CA, 2013.
- 2012 American Geophysical Union, Fall Meeting, Ice Sheet Hydrologic Network Development and Functioning Examined with In Situ River Discharge from Nested Watersheds in Southwest Greenland, San Francisco, CA, 2012.
- 2010 American Geophysical Union, Fall Meeting, Greenland Ice Margin Processes Inferred from Terrestrial River Discharge, San Francisco, CA, 2010.
- 2007 Arctic Research Consortium of the U.S., Annual Meeting and Arctic Forum. Identification of Dominant Pan-arctic River Discharge Trends, Washington, D.C., 2007.
- 2006 Freshwater Initiative, All-hands meeting, Sensitivity of the Thermohaline Circulation to Freshwater Export from Hudson Bay and Arctic Ocean Rivers, Estes Park, CO, 2006.
- 2005 American Geophysical Union, Fall Meeting, The Role of River Runoff in the Freshwater Budget of the Arctic Ocean, San Francisco, CA, 2005.
- 2000 European Geophysical Society, General Assembly, Carbon Dioxide and Water Vapor Fluxes from a High Arctic Fen, Nice, France, 2000.

OTHER PRESENTATIONS

- 2023 Rutgers, The State University of New Jersey, The Honors College, Witnessing climate change, What I have learned from my expeditions to the Greenland ice sheet, Panelist, New Brunswick, 2023.
- 2022 Rutgers, The State University of New Jersey, Mason Gross School of the Arts Visiting Filmmaker series: Utuqaq, Panelist, New Brunswick, 2022.
- 2022 Rutgers, The State University of New Jersey, Tea & Teachings with Jenevieve DeLosSantos, Guest speaker, Virtual, 2022.
- 2022 Rutgers, The State University of New Jersey, Scarlet Speaker, Presenter, Virtual, 2022.
- 2021 Rutgers, The State University of New Jersey, Active Learning Symposium, Panelist in session What a Year: What We've Learned and What We'll Take Back Into the Classroom, Virtual, 2021.
- 2019 Rutgers, The State University of New Jersey, Geological Museum Open House, Lecture, Meltdown in the Arctic: A Perspective from the Greenland Ice Sheet, New Brunswick, NJ, 2019.

- 2016 Association of Polar Early Career Scientist, Early Career lunchtime panel at American Geophysical Union's fall meeting, Panelist. San Francisco, CA, 2016.
- 2016 Foreningen Norden, Seminar series, Is the Greenland Ice Sheet Melting Away?, Invited Speaker. Stockholm, Sweden, 2016.
- 2016 Chatham High School, Physical Geography Class, Greenland and Climate Change, Guest Lecture, Chatham, NJ, 2016.
- 2016 University of Pennsylvania Law School, American Constitution Society and the Environmental Law Project, Too little too late, Panelist, Philadelphia, PA, 2016.
- 2015 Chatham High School, Physical Geography Class, Greenland and Climate Change, Guest Lecture, Chatham, NJ, 2015.
- 2014 Zimmerli Art Museum, Chatham High School Physical Geography Class Visit. Glacial Perspectives, Tour of exhibit. New Brunswick, New Jersey, 2014
- 2013 Zimmerli Art Museum, Teacher Workshop: Arctic Visions Melting Visions. The Greenland Ice Sheet and Arctic Climate Change, Lecture. New Brunswick, New Jersey, 2013
- 2013 Chatham High School, Physical Geography Class. Greenland and Climate Change, Guest Lecture. Chatham, New Jersey, 2013
- 2013 Syracuse University, Department of Geography Seminar: Geography of the Anthropocene, Hydrology in the Anthropocene, Guest lecture. Syracuse, NY, 2013.
- 2013 Barents Spektakel, Visionary Arctic Seminar, Arctic Meltdown: The Extreme Weather of 2012 and What is Ahead, Lecture, Kirkenes, Norway, 2013.
- 2010 Rutgers, The State University of New Jersey, Earth and Planetary Sciences Colloquium, Greenland Meltwater Export, Lecture. Piscataway, NJ, 2010.
- 2010 Princeton University, Graduate Engineering Council, Energy and Environment, Panelist. Princeton, NJ, 2010.
- 2009 Rutgers, The State University of New Jersey, New Faculty Seminar Series, Greenland: Meltdown in the North, Lecture, Piscataway, NJ, 2009.

ORGANIZING AND CHAIRING ACTIVITIES

- 2025 American Geophysical Union, Annual Meeting, The Cryosphere Is for All: Overcoming Barriers to Participation in the Cryospheric Sciences, Moderator, New Orleans, LA, 2025.
- 2025 American Geophysical Union, Annual Meeting, Societal Impact of Earth and Space Sciences, Moderator, New Orleans, LA, 2025.
- 2025 American Geophysical Union, Annual Meeting, The End of the Golden Era of Polar and Cryosphere Science in the United States?, Session organizer and chair, New Orleans, LA, 2025.
- 2025 American Geophysical Union, Annual Meeting, Nye lecture, Session organizer and chair, New Orleans, 2025.
- 2024 American Geophysical Union, Annual Meeting, Nye lecture, Session organizer and chair, Washington D.C., 2024.
- 2023 American Geophysical Union, Annual Meeting, Nye lecture, Session organizer and chair, San Francisco, CA, 2023.

- 2024 Sixth Israeli-American Kavli Frontiers of Science Symposium, Organizing committee, To be held in Jerusalem, Israel in 2024.
- 2023 Association of American Geographers, Annual Meeting, Cryospheric Changes, Session organizer and chair. Denver, CO, 2023.
- 2022 American Geophysical Union, Fall Meeting, Advances in Glacier and Ice Sheet Hydrology, Session organizer and chair, Chicago, IL, 2022.
- 2022 Arctic Research Consortium of the United States, Annual meeting, Virtual meeting, Organizing committee, 2022.
- 2022 Fifth Israeli-American Kavli Frontiers of Science Symposium, Organizing committee, San Diego, CA, 2022.
- 2020 Association of American Geographers, Annual Meeting, Advances in Cryosphere Research, Session organizer and chair, Virtual meeting, 2020.
- 2018 Greenland Ice Sheet-Ocean Interactions Research Network, Workshop on Greenland Freshwater Fluxes, Participant, Washington D.C., 2018.
- 2018 Lamont-Doherty Earth Observatory, Columbia University, Workshop, Antarctic Surface Hydrology and Ice Shelf Stability, Workshop participant, Lamont-Doherty, New York, NY, 2018.
- 2017 Geophysical Information for Teachers (GIFT) Workshop during the American Geophysical Union's Fall meeting, Workshop. Melting Greenland Ice Sheet, Melting Arctic Sea Ice - Causes and Global Effects, New Orleans, LA, 2017.
- 2017 Geological Survey of Denmark and Greenland, Workshop on Modeling Meltwater in Snow and Firn: Processes, Validation, Intercomparison and Model Uses of Optical Remotely Sensed Data, Participant, Copenhagen, Denmark, 2017.
- 2016 Lamont-Doherty Earth Observatory, Columbia University, Workshop, Greenland Surface Mass Balance Workshop: Understanding the fundamental processes controlling the surface mass balance of the Greenland ice sheet and improving estimates, Organizing committee, New York, NY, 2016.
- 2015 Association of American Geographers, Annual Meeting, R.S. Tarr Student Illustrated Paper Competition, Session organizer and chair, Chicago, IL, 2015.
- 2015 New Generation Polar Researchers Leadership Symposium, Mentor, Catalina Island, CA, 2015.
- 2015 Rutgers, The State University of New Jersey, Symposium, Climate Change in Polar Regions, Steering committee and panel moderator, New Brunswick, NJ, 2015.
- 2014 Rutgers, The State University of New Jersey, Workshop, High-Performance and Distributed Computing for Polar Sciences: Workshop on Applications and Cyberinfrastructure, Steering committee and organizer, New Brunswick, NJ, 2014.
- 2014 American Geophysical Union, Fall Meeting, Glacier, Ice Cap, and Ice Sheet Hydrology, Session organizer and chair, San Francisco, CA, 2014.
- 2014 Association of American Geographers, Annual Meeting, R.S. Tarr Student Illustrated Paper Competition, Session organizer and chair. Tampa, FL, 2014.
- 2013 Association of American Geographers, Annual Meeting, Arctic Hydrology in a Changing Climate, Session organizer and chair. Los Angeles, CA, 2013.

- 2012 American Geophysical Union, Fall Meeting, Glacier, Ice Cap, and Ice Sheet Hydrology: Storage, Transport, and Impacts, Session organizer and chair, San Francisco, CA, 2012.
- 2012 Rutgers, The State University of New Jersey, Department of Geography Sixth MaGrann Symposium, Breaking the Ice: Theorizing the Mechanisms of Arctic Thaw, Organizer, New Brunswick, NJ, 2012.
- 2010 Association of American Geographers, Annual Meeting, Land, Ocean, and Atmosphere in a Changing Arctic, Session organizer and chair, Washington, D.C., 2010.

Externally-Funded Research Grants

- 2019-2022 (Grant Amount: \$127,207) National Aeronautics and Space Administration, Representing surface meltwater runoff in Greenland ice sheet models, Laurence C. Smith, Åsa K. Rennermalm, Agency: NASA, Role: Co-principal investigator
- 2016-2019 (Grant Amount: \$391,939) National Science Foundation, Collaborative Research: Refreezing in the firn of the Greenland ice sheet: Spatiotemporal variability and implications for ice sheet mass balance, Award #1604058, Åsa K. Rennermalm, Regine Hock, Marco Tedesco, Agency: NSF, Role: Principal Investigator
- 2014-2017 (Grant Amount: \$124,510) National Aeronautics and Space Administration, Drainage Efficiency of the Greenland Ice Sheet's Supraglacial River Network, Laurence C. Smith, Åsa K. Rennermalm, Agency: NASA, Role: Co-Principal Investigator
- 2013-2016 (Grant Amount: \$295,659) National Science Foundation, Collaborative Research: Assessing the Impact of Arctic Sea Ice Variability on the Greenland Ice Sheet Surface Mass and Energy Balance, Award #: PLR-1304805, Julianne C. Stroeve, Mark C. Serreze, Åsa K. Rennermalm, Marco Tedesco, Agency: NSF, Role: Principal Investigator
- 2013-2016 (Grant Amount: \$134,087) National Aeronautics and Space Administration, From the Ice Sheet to the Sea: An Interdisciplinary Study of the Impact of Extreme Melt on Ocean Stratification and Productivity near West Greenland, Award# NNX14AD98G, Thomas Mote, Kevin Arrigo. Renato Castelao, Åsa K. Rennermalm, Marco Tedesco, Patricia Yaeger, Agency: NASA, Role: Co-Principal Investigator
- 2012-2015 (Grant Amount: \$90,000) National Aeronautics and Space Administration Earth and Space Science Fellowship, Assessing Greenland Ice Sheet Meltwater Losses Through Braided Rivers Using ASTER, Landsat, Airborne NASA IceBridge, and In Situ Data, Award# NNX12AN98H, Student fellowship awarded to Samiah E. Moustafa, Åsa K. Rennermalm, Samiah E. Moustafa, Agency: NASA, Role: Principal Investigator
- 2011-2014 (Grant Amount: \$189,809) National Aeronautics and Space Administration, Towards Hydrologic Understanding of the Greenland Ice Sheet, Award# NNX11AQ38, Laurence C. Smith, Åsa K. Rennermalm, Yongwei Sheng, Agency: NASA, Role: Co-Principal Investigator

Externally-Funded co-Curricular Programming Grants

- 2013 (Grant Amount: \$1,600) The Consortium of Universities for the Advancement of Hydrologic Science, Inc., Let Us Talk About Water. Support for events about Arctic climate change and water issues, A. K. Rennermalm, T. Birkenholz, Role: Principal Investigator

- 2011 (Grant Amount: \$2,000) Arctic Research Consortium of the United States, Arctic Visiting Speaker Series. Support for hosting speaker at Chatham High School and Rutgers, The State University of New Jersey, A. K. Rennermalm, M. Holzer, Role: Principal Investigator

Internally-Funded Research Grants

- 2026-2027 (Grant Amount: \$70,000) AI-Geoscience Collaborations for a Changing Arctic, Asa Rennermalm, Ruixiang Tang, Yongfeng Zhang, Agency: School of Arts and Sciences Research In Academic Themes,, Role: Principal Investigator
- 2025-2026 (Grant Amount: \$9,000) Fostering Interdisciplinary Connections Between Physical and Human Geography: Climate Change and Arctic Resource Dynamics, Asa Rennermalm, Andrea Marston, Agency: MaGrann Fund, Department of Geography, Role: Principal Investigator
- 2025-2026 (Grant Amount: \$15,000) AI Detection of Meltwater on the Greenland Ice Sheet, Åsa K. Rennermalm, Ruixiang Tang, and Yongfeng Zhang, Agency: Rutgers Climate And Energy Institute
- 2025-2026 (Grant Amount: \$3,000) Mapping of Greenland Ice Sheet Surface Streams, Asa Rennermalm, Agency: MaGrann Fund, Department of Geography, Role: Principal Investigator
- 2020-2021 (Grant Amount: \$14,988) Global Environmental Change Grants, Towards Understanding Greenland Ice Sheet Melting by Mapping Boundary Layer Properties with Unmanned Aerial Vehicle, Åsa K. Rennermalm, Kyle Mattingly, Mark Miller, Role: Principal Investigator
- 2012 (Grant Amount: \$18,520) Faculty Research Grant Program, Towards Understanding Greenland Ice Sheet's Riverine Runoff, Åsa. K. Rennermalm, Role: Principal Investigator

Internally-Funded Curricular Programming Grants

- 2015-2016 (Grant Amount: \$1,000) Global Initiatives: Global Urbanism! Support for Geography Seminar Series: Focus on Global Urbanism, Åsa K. Rennermalm, Role: Principal Investigator
- 2013-2014 (Grant Amount: \$2,500) Global Initiatives: Global Health, Support for Polar Perspectives on Science and Art, a series of six events associated with the Zimmerli Art Museum exhibit Glacial Perspectives, Åsa K. Rennermalm, Hal Salzman, Donna Gustafsson, Role: Principal Investigator
- 2011-2012 (Grant Amount: \$600) Global Initiatives: Technologies Without Borders: Technologies Across Borders, Support for two seminar speakers, Åsa K. Rennermalm, Role: Principal Investigator
- 2010-2011 (Grant Amount: \$750) Global Initiatives: Ecologies in the Balance? The Way Forward, Support for three seminar speakers, Åsa K. Rennermalm, Role: Principal Investigator

Students and Postdoctoral Mentorship

DOCTORAL DISSERTATION ADVISOR

- 2022-present Md Arafat Hassan, Greenland Ice Sheet Surface Rivers.
- 2018-2025 Jing Xiao, Understanding Increasing Meltwater Refreezing in Southwest Greenland Ice Sheet Firn.

- 2017-2024 Sasha Liedman, Predicting the Impact of the Supraglacial Streamflow-Albedo Feedback on Greenland Runoff.
- 2016-2023 Rohi Muthyala, Modeling of the Greenland Ice Sheet Supraglacial River.
- 2016-2023 Isatis Cintrón, Light Absorbing Particles and Trace Elements in Southwest Greenland Snow, Co-advisor.
- 2011-2017 Samiah E. Moustafa, Assessing Greenland Ice Sheet Meltwater Losses at the Pixel, Catchment, and Continental Scale.
- 2009-2015 John R. Mioduszewski, Characterization and Attribution of Spring Snow Melt over Northern Hemisphere Lands, Co-advisor.

MASTER STUDENTS

- 2025-present Bignan Liu, Greenland Ice Sheet Atmospheric Rivers and Cloud Formation. Master Thesis Advisor
- 2023-2024 Journey Berry, 4+1 Master program in Geology.

POSTDOCTORAL ASSOCIATES

- 2019-2021 Kyle Mattingly
- 2018-2019 Clement Mieke

ARESTY UNDERGRADUATE RESEARCH ASSISTANTS

- 2015 Yunpeng Lyu, Analysis of Northeast Greenland Near-surface Conditions, poster presented at Association of American Geographers Annual Meeting
- 2015 Vincent Quinton, Greenland ice sheet meltwater export characteristics, poster presented at Association of American Geographers Annual Meeting. Won the Cryosphere section's best student presentation award.
- 2014 Derek Baquero, Precipitation Analysis in Relation to Greenland's Melting Ice Sheet and a Changing Global Climate.
- 2012 Carolina Guzman, Surface Climate along a Greenland Transect.
- 2011 Aimee Blenner, Using Remote Sensing to Analyze Greenland's Braided Rivers.

UNDERGRADUATE INDEPENDENT STUDIES SUPERVISED

- 2023 Journey Berry, Historical Evolution and Possible Triggers for the Retreat of Bear Glacier Lagoon, Alaska.
- 2023 Astrid Carter, Mapping Supraglacial Streams on the Greenland Ice Sheet.
- 2021 Miguel Romero, Greenland Ice Sheet Melting.
- 2018 Kierin Rogers, The Cryosphere and Greenland.
- 2016 Jared Schenkel, The Cryosphere and Greenland.
- 2014 Derek Baquero, The Cryosphere and Greenland.
- 2013 Andrew Fried, Elizabeth Miller, and Britta Rotermund, Land Surface Hydrology.
- 2013 Daniel Williams, Greenland Ice Sheet Surface Climate.
- 2011 Zachary Vajda, Greenland Ice Sheet Discharge.

UNDERGRADUATE INTERNSHIPS SUPERVISED

- 2025 Sararose Salluce, Raptors Trust.
- 2025 Chandler Potter, Montgomery Township.
- 2023 Hannah Wetter, The Environmental Protection Agency.
- 2022 Noam Ahron, Public Services Enterprise Group.
- 2022 Tara Duffy, Parks and Recreation Department of the East Brunswick Township.
- 2022 Evalina Macejka, United States Coast Guard Academy.
- 2018 Sean Halpin, American Geographical Society.
- 2017 Anthony Adams, Raritan Headwaters Association in Bedminster.
- 2017 Stephen Zuckerman, Middlesex County Department of Planning.
- 2017 David Le, Middlesex County Office of Planning.
- 2017 MacKenzie Heffernan, Pretty Girls Sweat.
- 2017 Brian McCrystal, Whittemore Community, Culture, and Conservation.
- 2016 Jessica Willoughby, Clearwater Marin Aquarium.
- 2016 Ryan Buttone, Middlesex County.
- 2016 Samuel Ferrara, Burlington County.
- 2015 Erin Nigro, Burlington County.
- 2015 Joshua Rozenberg, Mahwah Environmental Volunteers Organization.
- 2014 Stephen Gryszel, Metropolitan Transport Authority.
- 2014 David Ferraro, Union County.
- 2014 Raymond Soto, Burlington County.
- 2013 Jamie Donatiello, Vertices.
- 2013 Justin Lilly, Lansdale Borough.
- 2011 Monica Napolitano, New Jersey Department of Environmental Protection.

Teaching Activities

LARGE ENROLLMENT COURSES

Earth Systems (200–300 students per offering), taught regularly since 2010

UPPER-LEVEL COURSES

Advanced Geographic Information Systems

Advanced Physical Geography: Polar Environments

Advanced Physical Geography: Surface Water

Field Methods

Geographical Hydrology

Geographical Research Methods

Global Climate Systems

Spatial Data Analysis, taught regularly since 2010

GRADUATE SEMINARS

Glaciers and Climate Change

The World in 2050

INSTRUCTIONAL DEVELOPMENT

2018-2025 Learning Assistant Program. Mentored two to three undergraduate learning assistants annually in the Earth System course.

2021 Rutgers Active Learning Symposium, Panelist

Service

PROFESSIONAL SERVICE

2023-2024 American Association of Geographers Justice, Equity, Diversity, and Inclusion subcommittee on focused listening, member.

2022-2024 American Geophysical Union Cryosphere Section's Fellows Nomination Committee, Chair since 2023.

2022-2023 Arctic Research Consortium of the United States (ARCUS) Membership & Development Committee, member.

2020-2024 Israeli-American Kavli Frontiers of Science Symposium, Organizing committee for symposia funded by The Kavli Foundation, The Israel Academies of Sciences of Humanities, The U.S. National Academies of Sciences, member.

2011-2024 Consortium of Universities for the Advancement of Hydrologic Sciences, Inc., Representative for Rutgers, The State University of New Jersey.

2021 National Science Foundation: "Crevasse Risk Management and Safety Workshop", June, Virtual, participant.

2013-2016 American Association of Geographers, Cryosphere Specialty Group, Board member.

SELECTED UNIVERSITY SERVICE

2024-2025 Faculty Search Committee "State Climatologist", Member.

2024-2025 Faculty Search Committee "Data Science/AI of Extreme Events", Member.

2023-2024 Chancellor-Provost Challenge, Cyberinfrastructure for AI for Science & Engineering, team member.

2023-2024 Facilitating recruitment and retention of BIPOC students in Geoscience, Sloan funded initiative, participant.

2021-2024 School of Arts and Sciences Office of Undergraduate Education, Advisory committee for program assessments.

2018-2024 Signature Course Steering Committee, Member.

2023 Discovery Advantage Focus Group, Member.

2022 Promotion Committee, Office of Undergraduate Education.

2021 Rutgers Unlearning Racism in Geosciences Pod, Member.

2018 - Advancement and Promotion Committee, School of Arts and Sciences (multiple terms).
present

- 2019 Rutgers Polar Day, Networking, short talks, and keynote lecture for Rutgers researcher studying the polar regions, Organizer.
- 2018-2019 Henry Rutgers Chair Search Committee, Member.
- 2017-2018 EOAS Strategic Planning for Polar Science theme, Co-chair.
- 2016-2018 Atmospheric sciences graduate program admissions committee, Member.
- 2017 Rutgers Polar researcher meetup, Networking, short talks, and discussions for Rutgers researcher studying the polar regions, Organizer.
- 2016-2017 School of Arts and Sciences Nominations Committee, Committee member.
- 2015 Global Advisory Board, Douglas Residential College, Member.
- 2013 Polar Perspectives on Science and Art. Zimmerli Museum Art exhibit and seven events/seminars, Organizing committee.
- 2013 Rutgers Climate Institute, Bridging the Climate Divide: Informing The Response to Hurricane Sandy and Implications for Future Vulnerability, Panelist.
- 2013 Rutgers Climate Institute. Climate Change Education Workshop, Planning committee.
- 2013 Students for Environmental Awareness and Rutgers Geology Club, Earth Day Film Festival, Panelist.
- 2011 Institute for Women and Art, Global Warming: Women in Science and Art Discuss Climate Issues and Activism, Panelist.

SELECTED DEPARTMENT SERVICE

- 2026 Applying Climate Science: A Symposium Honoring David A. Robinson's Scholarship and Service, Organizer.
- 2024-2025 Faculty Search Committee "Remote Sensing and Biodiversity", Member.
- 2021-2022 Physical Geography Justice, Equity, Diversity and Inclusion Study Group.
- 2011-2023 Graduate program admission committee member (multiple terms).
- 2010-2019 Department seminar series coordinator.

PANEL AND PROPOSAL REVIEW

National Aeronautics and Space Administration (Early Career Investigator Program); National Science Foundation, Office of Polar Programs (multiple panel and ad hoc reviews); Natural Sciences and Engineering Research Council of Canada; Natural Environment Research Council (UK); Swiss National Science Foundation; Netherlands Organisation for Scientific Research (NWO), Polar Programme

MANUSCRIPT REVIEW

Reviewer for 25+ journals including Nature, Nature Climate Change, Nature Communications, Science Advances, Journal of Climate, Journal of Glaciology, Water Resources Research, and The Cryosphere

Languages

Swedish (native); English (fluent); Danish (professional working proficiency); French (approximate B1 proficiency)