

ALEXANDRA JAHN

Department of Atmospheric and Oceanic Sciences and Institute of Arctic and Alpine Research
University of Colorado Boulder, Campus Box 450, Boulder, CO 80309-0450, USA

☎ +1-303-735-3352 ✉ alexandra.jahn@colorado.edu

🏠 www.instaar.colorado.edu/people/alexandra-jahn 🐦 @SeaIceClimate

ACADEMIC APPOINTMENTS

- 01/2015 –** **Assistant Professor**, Dept. of Atmospheric & Oceanic Sciences, CU Boulder, USA
Fellow, Institute of Arctic and Alpine Research, CU Boulder, USA
On parental leave Fall 2015 and Spring 2020
- 2012 – 2014** **Project Scientist 1**, National Center for Atmospheric Research (NCAR), USA
- 2010 – 2012** **Advanced Study Program Postdoctoral Fellow**, NCAR, USA

UNIVERSITY EDUCATION

- 2004–2010** **PhD**, Dept. of Atmospheric & Oceanic Sciences at McGill University, Canada
- 1998–2004** **Diplom**, Dept. of Meteorology at the Free University of Berlin, Germany. Thesis work at Potsdam Institute for Climate Impact Research, Germany. Master of Science equivalent, includes undergraduate studies without separate degree
- 2001/02** **Exchange student**, Atmospheric Sciences, University of Washington, Seattle, USA

FUNDED PROPOSALS (\$7.07 MILLION TOTAL, \$2.16 MILLION DIRECTLY TO JAHN AT CU)

- 2019, NSF** **CAREER: Reducing the projection uncertainty for Arctic sea ice loss**, PI: **A. Jahn**, 2019–2024, \$819,991.
- 2019, NSF** **The Arctic Observing Network: Sustained Observations at the Davis Strait Gateway**, PI: C. Lee (UW), co-PIs: **A. Jahn**, Jason Gobat (UW), Kathleen M. Stafford (UW), collaborator: P. Myers (Univ. Alberta), 2019–2024, \$3,669,176, of that \$385,799 to Jahn.
- 2019, NSF** **Integrating Eocene Shark Paleoecology and Climate Modeling to reveal Southern Ocean Circulation and Antarctic Glaciation**, PI: S. Kim (UC - Merced), co-PIs: **A. Jahn**, M. Huber (Purdue), H. Scher (USC), 2019–2022, \$849,376, of that \$78,056 to Jahn.
- 2019, NASA** **Using a Satellite Simulator to Better Evaluate and Understand Arctic Sea Ice Melt**, Future Investigators in NASA Earth and Space Science and Technology (FINESST)^a, PI: **A. Jahn**, Future Investigator: A. Smith, 2019–2021, \$90,000.
- 2018, NSF** **Timing and Paleoceanographic Impacts of the Onset of Arctic-Baffin Bay Throughflow**, PI: A. Jennings (CU), co-PIs: **A. Jahn**, J. Andrews (CU), J. Sepulveda (CU), T. Marchitto (CU), 2018–2021, \$668,325 to CU, of that \$133,666 to Jahn.
- 2016, NSF** **Carbon Isotope and geotracer-enabled Transient Climate Evolution of the Deglacial Ocean (C-iTRACE-O)**, PI: **A. Jahn**, co-PI: Z. Liu (Ohio State), 2016–2021, \$559,995, of that \$301,994 to Jahn.
- 2015, NSF** **Assessing the simulated Arctic freshwater system in CMIP5 models, the CESM large ensemble, and forced simulations**, PI: **A. Jahn**, co-PIs: M. Holland (NCAR), B. Tremblay (Columbia Univ), 2015–2020, \$411,251, of that \$351,004 to Jahn.

FELLOWSHIPS AND AWARDS (\$244,500 TOTAL TO JAHN, EXCLUDING CAREER)^b

- 2019–2024** **NSF-CAREER award**
- 2012** **Christine Mirzayan Science & Techn. Policy Fellowship, National Academies**
\$8500 in support over 3 months.

^aFINESST supports graduate student designed and performed research projects, with a research mentor as PI.

^bCAREER funding is included in the total under proposals

- 2010–2012** **Advanced Study Program Postdoctoral Fellowship at NCAR**
 Proposal-based fellowship for two years of self-directed postdoctoral research. \$150,000.
- 2006–2008** **PhD Fellowship, German National Academic Foundation**
 Proposal-based PhD fellowship from the German National Academic Foundation (Studienstiftung des deutschen Volkes). \$55,000.
- 2001–2002** **Fulbright Travel Award and Exchange Fellowship from FU Berlin**
 For studies at the University of Washington in Seattle, USA. \$15,000.
- 2001–2004** **Student Fellowship, German National Academic Foundation**
 Merit-based fellowship from the German National Academic Foundation (Studienstiftung des deutschen Volkes). \$16,000.

SUPERCOMPUTER GRANTS AWARDED (8.85 MILLION CORE HOURS TOTAL)

- 2019** **NCAR-CISL**, 100,000 core hours on NSF’s Cheyenne supercomputer for the project “CAREER: Reducing the projection uncertainty for Arctic sea ice loss”, 2019–2024, PI: **A. Jahn**.
- 2019** **NCAR-CISL**, 200,000 core hours on NSF’s Cheyenne supercomputer for the project “Integrating Eocene Shark Paleoecology and Climate Modeling to reveal Southern Ocean Circulation and Antarctic Glaciation”, 2019–2022, PI: **A. Jahn**.
- 2018** **NCAR-CISL**, 1.3 million core hours on NSF’s Cheyenne supercomputer for the project “Paleoceanographic Impacts of the Onset of Arctic-Baffin Bay Throughflow”, 2018–2021, PI: **A. Jahn**.
- 2016** **NCAR-CISL**, 3.2 million core-hours on NSF’s Yellowstone & Cheyenne supercomputers for the project “Carbon Isotope and geotracer-enabled ocean simulations for present-day and the Last Glacial Maximum”, 2016–2021, PI: **A. Jahn**.
- 2016,17,18** **NCAR-CISL**, 20,000 core hour classroom allocations on NSF’s Yellowstone & Cheyenne supercomputers in the fall semesters of 2016 & 2017 & 2018, to teach students in “Introduction to Physical Oceanography” how to use a supercomputer and run CESM, PI: **A. Jahn**.
- 2015** **NCAR-CISL**, 3.5 million core hours on NSF’s Yellowstone & Cheyenne supercomputers for the project “Mechanisms leading to synchronous snowline depression throughout the northern North Atlantic during the Late Holocene”, 2015–2018, PI: G. Miller, co-PI: **A. Jahn**.
- 2015** **NCAR-CISL**, 528,000 core hours on NSF’s Yellowstone & Cheyenne supercomputers for the project “Using Arctic freshwater tracers to assess changes and variability of the Arctic freshwater budget”, 2015-2020, PI: **A. Jahn**.

REFEREED PUBLICATIONS

39 total accepted

4 under review

10 first authored by Jahn, 5 first authored by direct advisees of Jahn

ResearcherID: C-6545-2008, ORCID iD:0000-0002-6580-2579

Web of science h-index = 22; 1,389 citations.

Google Scholar h-index = 24; 1,992 citations.

¹ = Jahn as primary advisor for student or postdoc

Published/Accepted

39. **2020: Jahn, A. and R. Laiho¹**, Forced Changes in the Arctic Freshwater Budget Emerge in the Early 21st Century, *Geophysic. Res. Lett.*, 47, doi:10.1029/2020GL088854.

38. **2020: Smith, A.¹, A. Jahn**, M. Wang, Seasonal transition dates can reveal biases in Arctic sea ice simulations, *The Cryosphere*, accepted on July 7th 2020, in press. Discussion paper, reviews, and link to final paper (to come soon) at doi:10.5194/tc-2020-81.
37. **2020: DeRepentigny, P.¹, A. Jahn**, M. Holland, **A. Smith¹**, Arctic Sea Ice in Two Configurations of the Community Earth System Model Version 2 (CESM2) During the 20th and 21st Centuries, *J Geophys Res-Oceans*, 125, doi:10.1029/2020JC016133.
36. **2020: Gu, S.**, Z. Liu, D.W. Oppo, J. Lynch-Stieglitz, **A. Jahn**, J. Zhang, L. Wu, Assessing the potential capability of reconstructing glacial Atlantic water masses and AMOC using multiple proxies in CESM, *Earth and Planetary Science Letters*, 541, 116294, doi:10.1016/j.epsl.2020.116294.
35. **2020: SIMIP Community** (including **P. DeRepentigny¹** and **A. Jahn**), Arctic Sea Ice in CMIP6, *Geophys. Res. Lett.*, 47, doi:10.1029/2019GL086749.
34. **2020: DeRepentigny, P.¹, A. Jahn**, L. B. Tremblay, R. Newton, S. Pfirman, Increased transnational sea ice transport between neighboring Arctic states in the 21st century. *Earth's Future*, 8, doi:10.1029/2019EF001284. *Press release*
33. **2019: England, M., A. Jahn**, L. Polvani, Non-uniform contribution of natural variability to recent Arctic sea-ice loss, *J. Climate*, 32, 4039–4053, doi:10.1175/JCLI-D-18-0864.1.
32. **2019: Gu, S.**, Z. Liu, J. Lynch-Stieglitz, **A. Jahn**, J. Zhang, K. Lindsay, L. Wu, Assessing the Ability of Zonal $\delta^{18}\text{O}$ Contrast in Benthic Foraminifera to Reconstruct Deglacial Evolution of Atlantic Meridional Overturning Circulation, *Paleoceanography and Paleoclimatology*, 34, 800–812, doi:10.1029/2019PA003564.
31. **2019: Gu, S.**, Z. Liu, **A. Jahn**, J. Rempfer, J. Zhang, F. Joos, Modelling neodymium isotopes in the ocean component of the Community Earth System Model (CESM1), *Journal of Advances in Modeling Earth Systems*, 11, 624–640. doi:10.1029/2018MS001538.
30. **2019: Eyring, V.**, P. Cox, G. Flato, P. Gleckler, G. Abramowitz, P. Caldwell, W. Collins, B. Gier, A. Hall, F. Hoffman, G. Hurtt, **A. Jahn**, C. Jones, S. Klein, J. Krasting, L. Kwiatkowski, R. Lorenz, E. Maloney, G. Meehl, A. Pendergrass, R. Pincus, A. Ruane, J. Russell, B. Sanderson, B. Santer, S. Sherwood, I. Simpson, R. Stouffer, M. Williamson, Taking climate model evaluation to the next level, 9, 102–110, *Nature Climate Change*, doi:10.1038/s41558-018-0355-y.
29. **2019: Smith, A.¹, A. Jahn**, Definition differences and internal variability affect the simulated Arctic sea ice melt season, *The Cryosphere*, 13, 1–20, doi:10.5194/tc-13-1-2019.
28. **2018: Zhong, Y.¹, A. Jahn**, G. H. Miller, A. Geirsdottir, Asymmetric Cooling of the Atlantic and Pacific Arctic during the Past Two Millennia: A Dual Observation-Modeling Study, 45, *Geophys. Res. Lett.*, doi:10.1029/2018GL079447.
27. **2018: Jahn, A.**, Reduced probability of ice-free summers for 1.5 °C compared to 2.0 °C warming, *Nature Climate Change*, 8, 409–413 doi:10.1038/s41558-018-0127-8. *Press release*.
26. **2017: Zhu, J.**, Z. Liu, E. Brady, B. Otto-Bliesner, S. Marcott, J. Zhang, X. Wang, J. Nusbaumer, T. Wong, **A. Jahn**, D. Noone, Investigating the direct meltwater effect in terrestrial oxygen-isotope paleoclimate records using an isotope-enabled Earth system model, *Geophys. Res. Lett.*, 44, doi:10.1002/2017GL076253.
25. **2017: Pendleton, S.L.**, G. Miller, R. A. Anderson, S. E. Crump, **Y. Zhong¹**, **A. Jahn**, A. Geirsdottir, Episodic Neoglacial expansion and rapid 20th Century retreat of a small ice cap on Baffin Island, Arctic Canada, *Climate of the Past*, 13, 1527–1537, doi:10.5194/cp-2017-27.
24. **2017: Zhang, J.**, Z. Liu, E. C. Brady, **A. Jahn**, K. Lindsay, D. W. Oppo, P. U. Clark, S. A. Marcott, Asynchronous warming and $\delta^{18}\text{O}$ evolution of deep Atlantic water masses during the last deglaciation, *Proc Natl Acad Sci USA*, doi:10.1073/pnas.1704512114.
23. **2017: Sanderson, B.**, Y. Xu, C. Tebaldi, M. Wehner, B. O'Neill, **A. Jahn**, A. Pendergrass, F. Lehner, W. Strand, L. Lin, R. Knutti, J.-F. Lamarque, Community Climate Simulations to assess avoided impacts in 1.5 °C and 2 °C futures, *Earth Syst. Dynam.*, 8, 827–847, doi:10.5194/esd-8-827-2017.
22. **2017: Zhu, J.**, Z. Liu, E. Brady, B. Otto-Bliesner, J. Zhang, D. Noone, R. Tomas, J. Nusbaumer, T. Wong, **A. Jahn**, C. Tabor, Reduced ENSO Variability at the LGM Revealed by an Isotope-enabled Earth System Model, *Geophys. Res. Lett.*, 44, doi:10.1002/2017GL073406.

21. **2017:** Otto-Bliesner, B. L., **A. Jahn**, R. Feng, E. C. Brady, A. Hu, M. Löffverström, Amplified North Atlantic warming in the late Pliocene by changes in Arctic gateways, *Geophys. Res. Lett.*, 44, doi:10.1002/2016GL071805.
20. **2016:** **Jahn, A.**, J. E. Kay, M.M. Holland, D. M. Hall, How predictable is the timing of a summer ice-free Arctic?, *Geophys. Res. Lett.*, 43, 9113–9120, doi:10.1002/2016GL070067. *Press release.*
19. **2016:** Notz, D., **A. Jahn**, M. Holland, E. Hunke, F. Massonnet, J. Stroeve, B. Tremblay, M. Vancoppenolle, The CMIP6 Sea-Ice Model Intercomparison Project (SIMIP): Understanding sea ice through climate-model simulations, *Geophys. Mod. Develop.*, 9, 3427–3446, doi:10.5194/gmd-9-3427-2016.
18. **2016:** Otto-Bliesner, B., E. Brady, J. Fasullo, **A. Jahn**, L. Landrum, S. Stevenson, N. Rosenbloom, A. Mai, G. Strand, Climate Variability and Change since 850 C.E.: An Ensemble Approach with the Community Earth System Model (CESM), *Bull. Am. Meteorol. Soc.*, 97(5), 735–754, doi:https://doi.org/10.1175/BAMS-D-14-00233.1.
17. **2016:** Ilicak, M., H. Drange, Q. Wang, R. Gerdes, Y. Aksenov, D. Bailey, M. Bentsen, A. Biastoch, A. Bozec, C. Böning, C. Cassou, E. Chassignet, A. C. Coward, B. Curry, G. Danabasoglu, S. Danilov, E. Fernandez, P. G. Fogli, Y. Fujii, S. M. Griffies, D. Iovino, **A. Jahn**, T. Jung, W. G. Large, C. Lee, C. Lique, J. Lu, S. Masina, A. J. G. Nurser, C. Roth, D. S. y Mélia, B. L. Samuels, P. Spence, H. Tsujino, S. Valcke, A. Voldoire, X. Wang, S. G. Yeager, An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part III: Hydrography and fluxes, *Ocean Modelling*, 100, 141–161, doi:10.1016/j.ocemod.2016.02.004.
16. **2016:** Wang, Q., M. Ilicak, R. Gerdes, H. Drange, Y. Aksenov, D. A Bailey, M. Bentsen, A. Biastoch, A. Bozec, C. Böning, C. Cassou, E. Chassignet, A. C. Coward, B. Curry, G. Danabasoglu, S. Danilov, E. Fernandez, P. G. Fogli, Y. Fujii, S. M. Griffies, D. Iovino, **A. Jahn**, T. Jung, W. G. Large, C. Lee, C. Lique, J. Lu, S. Masina, A.J. G. Nurser, B. Rabe, C. Roth, D. S. y Mélia, B. L. Samuels, P. Spence, H. Tsujino, S. Valcke, A. Voldoire, X. Wang, S. G. Yeager, An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part II: Liquid freshwater, *Ocean Modelling*, 99, 86–109, doi:10.1016/j.ocemod.2015.12.009.
15. **2016:** Wang, Q., M. Ilicak, R. Gerdes, H. Drange, Y. Aksenov, D. A Bailey, M. Bentsen, A. Biastoch, A. Bozec, C. Böning, C. Cassou, E. Chassignet, A. C. Coward, B. Curry, G. Danabasoglu, S. Danilov, E. Fernandez, P. G. Fogli, Y. Fujii, S. M. Griffies, D. Iovino, **A. Jahn**, T. Jung, W. G. Large, C. Lee, C. Lique, J. Lu, S. Masina, A.J. G. Nurser, B. Rabe, C. Roth, D. S. y Mélia, B. L. Samuels, P. Spence, H. Tsujino, S. Valcke, A. Voldoire, X. Wang, S. G. Yeager, An assessment of the Arctic Ocean in a suite of interannual CORE-II simulations. Part I: Sea ice and solid freshwater, *Ocean Modelling*, 99, 110–132, doi:10.1016/j.ocemod.2015.12.008.
14. **2015:** **Jahn, A.**, K. Lindsay, X. Giraud, N. Gruber, B. L. Otto-Bliesner, Z. Liu, E. C. Brady, Carbon isotopes in the ocean model of the Community Climate System Model (CESM), *Geophys. Mod. Develop.*, 8, 2419–2434, doi:10.5194/gmd-8-2419-2015.
13. **2015:** Swart, N. C., J. C. Fyfe, E. Hawkins, J. E. Kay, **A. Jahn**, Influence of internal variability on Arctic sea-ice trends, *Nature Climate Change*, 5, 86–89, doi:10.1038/nclimate2483.
12. **2014:** Tilmes, S., **A. Jahn**, J. E. Kay, M. M. Holland, J.-F. Lamarque, Can regional climate engineering save the summer Arctic Sea Ice?, *Geophys. Res. Lett.*, 41(3), doi:10.1002/2013GL058731.
11. **2013:** **Jahn, A.** and M. M. Holland, Implications of Arctic sea ice changes for North Atlantic deep convection and the meridional overturning circulation in CCSM4-CMIP5 simulations, *Geophys. Res. Lett.*, 40, 6, 1206–1211, doi:10.1002/grl.50183.
10. **2012:** **Jahn, A.**, Y. Aksenov, B. A. de Cuevas, R. Gerdes, S. Häkkinen, E. Hansen, C. Herbaut, M.-N. Houssais, M. Karcher, C. Lique, A. Nguyen, P. Pemberton, L. de Steur, D. Worthen, J. Zhang, Arctic freshwater - How robust are model simulations?, *J Geophys Res-Oceans*, 117, doi:10.1029/2012JC007907.
9. **2012:** **Jahn, A.**, K. Sterling, M. M. Holland, J. E. Kay, J. A. Maslanik, C. M. Bitz, D. A. Bailey, J. Stroeve, E. C. Hunke, W. H. Lipscomb, **D. A. Pollak**, Late 20th century simulation of Arctic sea ice and ocean properties in the CCSM4, *Journal of Climate*, 25(5), 1431–1452, doi:10.1175/JCLI-D-11-00201.1.
8. **2012:** Vavrus, S., M. M. Holland, **A. Jahn**, D. A. Bailey, J. A. Maslanik, B. Blazey, Simulation of the 21st century Arctic climate in the CCSM4, *Journal of Climate*, Vol. 25(8), 2696–2710, doi:10.1175/JCLI-D-11-00220.1.

7. **2012:** Jochum, M., **A. Jahn**, S. Peacock, D. Bailey, J. Fasullo, J. Kay, S. Levis, B. Otto-Bliesner, True to Milankovitch: Glacial Inception in the new Community Climate System Model, *Journal of Climate*, 25(7), 2226–2239, doi:10.1175/JCLI-D-11-00044.1.
6. **2011:** Proshutinsky, A., Y. Aksenov, J. Clement-Kinney, R. Gerdes, E. Golubeva, D. Holland, G. Holloway, **A. Jahn**, M. Johnson, E. Popova, M. Steele, E. Watanabe, Recent advances in Arctic Ocean studies employing models from the Arctic Ocean Model Intercomparison Project, *Oceanography*, 24(3), 102–113, doi:10.5670/oceanog.2011.61.
5. **2011:** Kay, J. E., M. M. Holland, **A. Jahn**, Interannual to Multidecadal Arctic Sea Ice Extent Trends in a Warming World, *Geophys. Res. Lett.*, 38, L15708, doi:10.1029/2011GL048008.
4. **2010:** **Jahn, A.**, B. Tremblay, R. Newton, M. M. Holland, L. A. Mysak, I. A. Dmitrenko, A tracer study of the Arctic Ocean’s liquid freshwater export variability, *J Geophys Res-Oceans*, 115, C07015, doi:10.1029/2009JC005873.
3. **2010:** **Jahn, A.**, B. Tremblay, L. A. Mysak, R. Newton, Effect of the large-scale atmospheric circulation on the variability of the Arctic Ocean freshwater export, *Climate Dynamics*, 34, 201–222, doi:10.1007/s00382-009-0558-z.
2. **2008:** Tjallingii, R., M. Claussen, J.-B. W. Stuut, J. Fohlmeister, **A. Jahn**, T. Bickert, F. Lamy, U. Röhl, Coherent high- and low-latitude control of the northwest African hydrological balance, *Nature Geoscience*, 1, 670–675, doi:10.1038/ngeo289.
1. **2005:** **Jahn, A.**, M. Claussen, A. Ganopolski, V. Brovkin, Quantifying the effect of vegetation dynamics on the climate of the Last Glacial Maximum, *Climate of the Past*, 1, 1–7, doi:10.5194/cp-1-1-2005.

Under Review

- 2020:** He, C., Z. Liu, B. L. Otto-Bliesner, E.C. Brady, C. Zhu, R. Tomas, P.U. Clark, J. Zhu, **A. Jahn**, S. Gu, J. Zhang, J. Nusbaumer, D. Noone, H. Cheng, Y. Wang, M. Yan, Y. Bao, The Hydroclimate Footprint Accompanying Pan-Asian Monsoon Water Isotope Evolution during the Last Deglaciation, submitted to *Nature Geoscience* on July 23rd 2020.
- 2020:** Horvath, A., J. Stroeve, R. Balaji, **A. Jahn**, Arctic sea ice melt onset favored by an atmospheric pressure pattern reminiscent of the North American-Eurasian Arctic Dipole Pattern, submitted to *Climate Dynamics* on July 6th 2020.
- 2020:** Gu, S., Z. Liu, D.W. Oppo, J. Lynch-Stieglitz, **A. Jahn**, J. Zhang, K. Lindsay, L. Wu, Remineralization dominating the $\delta^{13}C$ decrease in the mid-depth Atlantic during the last deglaciation, submitted to *Earth and Planetary Science Letters* on June 11th 2020.
- 2020:** Gu, S., Z. Liu, C. Ng Hong, J. Lynch-Stieglitz, J. F. McManus, M. Spall, **A. Jahn**, C. He, L. Lingwei, Y. Mi, W. Lixin, Intensified AMOC Interior Pathway of Glacial North Atlantic Intermediate Water due to Open Ocean Convection, submitted to *Nature Geoscience* on May 7th 2020.

In preparation

- 2020:** **Zanowski, H.**¹, **A. Jahn**, M. Holland, Arctic Freshwater in CMIP6 models, in preparation for *J Geophys Res-Oceans*.
- 2020:** **Smith, A.**¹, **A. Jahn**, C. Burgard, D. Notz, Using a satellite simulator to evaluate and understand Arctic sea ice melt, in preparation for *The Cryosphere*.

CITABLE DATASETS

- 2020:** **A. Jahn**, Arctic Ocean freshwater fluxes and storage from simulations with the Community Earth System Model version 1.1 (CESM1.1), doi:10.18739/A2CC0TT8X.
- 2018:** **Zhong, Y**¹, **Jahn, A.**, G. H. Miller, A. Geirsdottir, Land use and volcanic forcing files for past2k CESM simulation, doi:10.5281/zenodo.1304427.

BLOG POSTS AND OTHER NON-REFEREED PUBLICATIONS (WITH LINKS)

- 2017:** Corwin, L., Harvey, P., K., S., Graf, J., Ellingson, E., Bhattacharya, A., Birsoy, B., Casagrand, J., Emery, N., Fillmann, C., Foley, T., Guild, N., **Jahn, A.**, Lee, M., Pao, L., Power, J., Chasteen, S. (2017), Course-based Undergraduate Research Experiences: Advancing CU Boulder’s Strategic Goals, CU Academic Futures white paper.

- 2017:** **A. Jahn**, Die Zukunft des Arktischen Meereises, Invited expert guest post for the German Year of the Ocean.
- 2016:** **A. Jahn**, How predictable is the first ice-free Arctic summer? Guest Blogpost at CarbonBrief.
- 2012:** Massonnet, F., and **A. Jahn**, Observational needs for sea ice models: CliC white paper.
- 2010:** **Jahn, A.**, Modeling the variability of the liquid freshwater export from the Arctic Ocean, PhD thesis, 194 pages, McGill University, Canada.
- 2005:** **Jahn, A.**, Theories and Modeling of Glacial-Interglacial Cycles and Glacial Inception, Center for Climate and Global Change Research (C2GCR) Report No. 2005-1, 57 pages, McGill University, Montreal, Canada.
- 2004:** **Jahn, A.**, Atmosphere-Vegetation Feedback in the Climate System of the Last Glacial, Diplom thesis, 129 pages, Free University of Berlin, Germany.

SCIENTIFIC PRESENTATIONS

Invited Scientific Presentations (36 total, of those one declined)

Update on the Sea Ice Model Intercomparison project (SIMIP) for CMIP6

12/2019: AGU talk in the session “Cryosphere Changes: Integrative Research and Synthesis” - declined due to parental leave

02/2019: Webinar talk at the IARPC webinar series of the Sea Ice and Modeling Teams

Assessing the predictability and probability of a summer ice-free Arctic

11/2018: Keynote before the ESSS Poster Conference hosted by the Atmospheric and Oceanic Sciences Department at CU Boulder, Boulder, USA.

11/2018: Seminar in the Atmospheric Science department seminar series at Colorado State University, Fort Collins, USA.

10/2018: Seminar in the INSTAAR seminar series at CU Boulder, Boulder, USA.

Boundary forced predictability and the challenges of internal variability

08/2018: Talk at the NSF-funded CESM Polar Modeling Workshop at NCAR, Boulder, USA.

Observed recent Arctic sea ice change, Arctic climate projections

05/2018: Talks/lectures^c at the International Polar Climate Summer School in Nanjing, China.

Assessing the prediction uncertainty of Arctic sea ice and ocean projections

05/2018: Seminar at in the Global Modeling and Assimilation Office seminar series at NASA Goddard, Maryland, USA.

Simulated Arctic sea ice and ocean change

04/2018: Keynote talk at the Arctic System Change workshop at NCAR, Boulder, USA.

Positive feedbacks from Arctic Ocean Sea Ice

11/2017: Talk at the CU Center for the Study of Origins Symposium on “The Coldest Centuries in 8000 Years: The Little Ice Age Causes and Human Consequences.”, Boulder, USA.

Understanding and reducing errors in sea ice projections from global climate models

10/2017: Keynote talk at the workshop on “Improved satellite retrievals of sea-ice concentration and sea-ice thickness for climate applications” in Hamburg, Germany.

Climate Modeling, Arctic sea ice projections, Sea ice Model Assessment

07/2017: Talks/lectures^c at the Connaught Summer Institute in Arctic Science: Atmosphere, Cryosphere, and Climate, Alliston, ON, Canada.

The Sea Ice Model Intercomparison project

06/2017: Talk at the CLIVAR/CliC/SCAR Southern Ocean Regional Panel 12th session, Boulder, USA.

Isotope modeling

05/2017: Talk at the Proxy System modeling and data assimilation in paleosciences workshop, Louvain-la-Neuve, Belgium.

^cAlso listed under other teaching

Climate Science and Climate Projection

05/2017: Talk at the CU Climate and Health workshop, Boulder, USA.

Impacts of Arctic freshwater on AMOC

03/2017: Seminar in the Cryospheric and Polar Processes Seminar at NSIDC, Boulder, USA.

Influence of internal variability on Arctic sea ice simulations

02/2017: Talk at the Santa Fe Climate Conference, NM, USA.

Challenges for assessing sea ice simulations from climate models against observations

01/2017: Talk at the 2017 AMS meeting in Seattle, WA, USA.

Isotope modeling with the CESM

08/2016: Talk at the 2016 CESM tutorial at NCAR, Boulder, USA.

Using large ensemble simulations to assess Arctic sea ice simulations and predictability

06/2016: Talk in the Large Ensemble session at the 2016 CESM workshop, Breckenridge, USA.

How predictable is the timing of a summer ice-free Arctic?

05/2016: Talk at the SEARCH SSC meeting in Boulder, USA.

04/2016: Seminar at the Institute for Meteorology at the Free University of Berlin, Germany.

Internal variability limits the predictability of a summer ice-free Arctic

12/2014: Talk at the fall AGU meeting in San Francisco, USA.

Using models to study Arctic climate variability and change

01/2014: Seminar at the Institute for Arctic and Alpine research (INSTAAR) in Boulder, USA.

Carbon isotopes in the CESM

08/2013: Talk at the “Isotopes of Carbon, Water, and Geotracers in Paleoclimate Research” conference in Bern, Switzerland.

Large Scale Modeling Data Needs

06/2013: Plenary talk at the CliC Sea ice Modeling & Observing workshop in Tromso, Norway.

Global Impacts of Arctic sea-ice changes

04/2012: Talk at the International Polar year (IPY) conference in Montreal, Canada.

Assessing future changes in the Arctic Ocean

04/2012: Seminar in the Dept. of Atmospheric & Oceanic Sciences, McGill University, Canada.

01/2012: Seminar at the Alfred Wegener Institute for Polar & Marine Science (AWI), Germany.

09/2011: Seminar in the Dept. of Physics & Astronomy at Howard University, Washington DC, USA.

The Polar Regions: An area of active research for decades to come

06/2011: Talk at the IUGG conference in Melbourne, Australia.

Variability and change in the Arctic Ocean

04/2011: Seminar at Woods Hole Oceanographic Institution, USA.

03/2011: Seminar in the Dept of Environment and Geography, University of Manitoba, Canada.

A tracer study of the Arctic Ocean’s liquid freshwater export variability

09/2010: Seminar in the CGD seminar series at NCAR, Boulder, USA.

06/2010: Seminar at the Alfred Wegener Institute for Polar & Marine Science (AWI), Germany.

06/2010: Talk at the CMOS conference in Ottawa, Canada.

Contributed Scientific Presentations

Total 126.

(presenting author other than the first author indicated by *.)

Presentations where neither Jahn nor her direct advisees were presenting author are not included

¹ = Jahn as primary advisor for student or postdoc

Detecting Arctic sea ice melt onset with a satellite simulator

06/2020: A. Smith¹, A. Jahn, C. Burgard, Lightning talk at the Polar Climate Working Group summer virtual 2020 CESM workshop.

Forced Changes in the Arctic Freshwater Budget Emerge in the Early 21st Century

06/2020: A. Jahn, R. Laiho¹ Lightning talk at the Polar Climate Working Group summer virtual 2020 CESM workshop.

Arctic Freshwater Storage and Export in CESM2-CAM6 and CESM2-WACCM6

06/2020: H. Zanowski¹, A. Jahn, M. Holland, Talk at the PCWG summer virtual 2020 CESM workshop.

02/2020: H. Zanowski¹, A. Jahn, M. Holland, Talk at the Winter Polar Climate Working group meeting, Boulder, USA

02/2020: H. Zanowski¹, A. Jahn, M. Holland, Poster at the 2020 Ocean Sciences meeting, San Diego, USA

Seasonal transitions of Arctic sea ice over the satellite era in CMIP6 models

05/2020: A. Smith¹, A. Jahn, M. Wang, [Virtual Display](#) at the virtual EGU 2020 meeting.

02/2020: A. Smith¹, A. Jahn, M. Wang, Talk at the Winter Polar Climate Working group meeting, Boulder, USA

12/2019: A. Smith¹, A. Jahn, M. Wang, Poster at the the 13th Annual Earth System and Space Science Poster Conference, Boulder, USA

Changes in Arctic sea ice in the CESM2 over the 20th and 21st centuries

05/2020: P. DeRepentigny¹, A. Jahn, M. Holland, **A. Smith¹**, [Virtual Display](#) at the virtual EGU 2020 meeting.

02/2020: P. DeRepentigny¹, A. Jahn, M. Holland, **A. Smith¹**, Talk at the Winter Polar Climate Working group meeting, Boulder, USA

12/2019: P. DeRepentigny¹, A. Jahn, M. Holland, **A. Smith¹**, Poster at the the 13th Annual Earth System and Space Science Poster Conference, Boulder, USA

09/2019: P. DeRepentigny¹, A. Jahn, M. Holland, **A. Smith¹**, Poster at the ESM Summer School 2019, Bad Aibling, Germany.

08/2019: P. DeRepentigny¹, A. Jahn, Poster at the IGS Sea ice Symposium: Sea Ice at the Interface, Winnipeg, Canada.

08/2019: P. DeRepentigny¹, A. Jahn, Talk at the 2019 SIMIP Workshop, Winnipeg, Canada.

No Scenario Impact on Arctic September Sea Ice in CESM2

08/2019: P. DeRepentigny¹, A. Jahn, Poster at the 2019 CESM Polar Modeling Workshop, Boulder, USA.

09/2019: P. DeRepentigny¹, A. Jahn, Poster at the ESM Summer School 2019, Bad Aibling, Germany.

Increased Transnational Sea Ice Transport Between Neighboring Arctic States in the 21st Century

08/2019: P. DeRepentigny¹, A. Jahn, B. Tremblay, R. Newton, S. Pfirmann, Talk at the IGS Sea ice Symposium: Sea Ice at the Interface, Winnipeg, Canada. *Awarded honorable mention for student presentation*

07/2019: P. DeRepentigny¹, A. Jahn, B. Tremblay, R. Newton, S. Pfirmann, Talk at the 27th IUGG conference, Montreal, Canada.

Identifying drivers of Arctic sea ice internal variability

08/2019: A. Jahn, Talk at the IGS Sea ice Symposium: Sea Ice at the Interface, Winnipeg, Canada.

07/2019: A. Jahn, Talk at the 27th IUGG conference, Montreal, Canada.

05/2019: A. Jahn, Talk at the 15th AMS Conference on Polar Meteorology and Oceanography, Boulder, USA.

Processes Driving the Arctic Sea Ice Open Water Period

08/2019: A. Smith¹, A. Jahn, M. Wang, Talk at the IGS Sea ice Symposium: Sea Ice at the Interface, Winnipeg, Canada.

05/2019: A. Smith¹, A. Jahn, M. Wang, Talk at the 15th AMS Conference on Polar Meteorology and Oceanography, Boulder, USA. *Won most outstanding student presentation award.*

Predictability and probability of a summer ice-free Arctic

07/2019: A. Jahn, Poster at the Large Ensembles Workshop, Boulder, USA.

Non-uniform contribution of internal variability to recent Arctic sea ice loss

05/2019: M. England, A. Jahn*, L. Polvani, 15th AMS Conference on Polar Meteorology and Oceanography, Boulder, USA

02/2019: M. England, A. Jahn*, L. Polvani, CESM Polar Climate Working Group winter meeting, Boulder, USA.

Future Sea-Ice Decline Predicted to Bring the Arctic Nations Closer Together

05/2019: P. DeRepentigny¹, A. Jahn, B. Tremblay, R. Newton, S. Pfirmann, Talk at the 15th AMS Conference on Polar Meteorology and Oceanography, Boulder, USA. *Won outstanding student presentation award.*

02/2019: P. DeRepentigny¹, B. Tremblay, R. Newton, S. Pfirmann, **A. Jahn**, Talk at the 2019 CESM Polar Climate Working Group meeting, Boulder, USA.

12/2018: P. DeRepentigny¹, B. Tremblay, R. Newton, S. Pfirmann, **A. Jahn**, Poster at the 2018 AGU conference in Washington DC, USA.

11/2018: P. DeRepentigny¹, B. Tremblay, R. Newton, S. Pfirmann, **A. Jahn**, Poster at the ESSS Poster Conference at CU Boulder, Boulder, USA. *Won best overall poster award*

Arctic freshwater modeling work at CU Boulder

08/2018: A. Jahn, R. Laiho¹, P. DeRepentigny¹, Oral talk at the Arctic Freshwater Dynamics Workshop at Lamont-Doherty, New York, USA.

Arctic Sea Ice Melt Season Length in the CESM Large Ensemble

11/2018: A. Ahlert¹, A. Jahn, Poster at the ESSS Poster Conference at CU Boulder, Boulder, USA. *Won the poster award in the Snow and Ice category*

06/2018: A. Ahlert¹, A. Jahn, Poster at the POLAR2018 meeting, Davos, Switzerland

Will future sea-ice decline bring the Arctic Nations closer together?

06/2018: P. DeRepentigny¹, B. Tremblay, R. Newton, S. Pfirmann, **A. Jahn**, Poster at the 23rd CESM workshop, Boulder, CO, USA

12/2017: P. DeRepentigny¹, B. Tremblay, R. Newton, S. Pfirmann, **A. Jahn**, Poster at the 11th Annual Earth System and Space Science Poster Conference, Boulder, CO, USA

Scenario Uncertainty for Arctic Freshwater Projections

06/2018: R. Laiho¹, A. Jahn, Poster at the 23rd CESM workshop, Boulder, CO, USA

Reduced probability of Arctic ice-free summers for 1.5 °C compared to 2 °C warming

04/2019: A. Jahn, Poster at the EGU 2019 meeting, Vienna, Austria

04/2018: A. Jahn, Poster at the Arctic System Change workshop at NCAR, Boulder, USA.

For Arctic summer sea ice, staying at 1.5 °C global warming matters

06/2018: A. Jahn, Talk at the POLAR2018 meeting, Davos, Switzerland

01/2018: A. Jahn, Talk at the PCWG meeting, Boulder, CO, USA

Assessing the impact of internal variability on comparisons of sea ice thickness with satellite derived products

- 08/2019:** A. Jahn, K. Dochen¹, D. Hall, Poster at the IGS Sea ice Symposium: Sea Ice at the Interface, Winnipeg, Canada
06/2018: A. Jahn, K. Dochen¹, D. Hall, Talk at the POLAR2018 meeting, Davos, Switzerland
12/2017: A. Jahn, K. Dochen¹, D. Hall, Talk at the AGU fall meeting, New Orleans, USA

Detecting Changes in the Arctic Freshwater Budget

- 06/2018:** R. Laiho¹, A. Jahn*, Poster at the POLAR2018 conference, Davos, Switzerland
04/2018: R. Laiho¹, A. Jahn, Poster at the 48th International Arctic Workshop, Boulder, CO
12/2017: R. Laiho¹, A. Jahn, Poster at the 11th Annual Earth System and Space Science Poster Conference, Boulder, CO
06/2017: R. Laiho¹, A. Jahn, Poster at the 22nd CESM Workshop, Boulder, CO
02/2017: R. Laiho¹, A. Jahn, Talk at the 2017 winter CESM Polar Climate Working Group Meeting, Boulder, CO

What Models and Satellites Tell Us (and Don't Tell Us) About Arctic Sea Ice Melt Season Length

- 12/2017:** A. Ahlert¹, A. Jahn, Talk at the AGU fall meeting, New Orleans, USA

Modeling North Atlantic Sea Ice and Circulation Changes during the Last 2ka

- 10/2017:** Y. Zhong¹, G. Miller, A. Jahn, A. Geirsdottir, Talk at the ANATILS meeting, Boulder, CO, USA

How the Timing of Melt and Freeze Onset Impacts Arctic Sea Ice Cover

- 12/2017:** A. Ahlert¹, A. Jahn, Poster at the 11th Annual Earth System & Space Science Poster Conference, Boulder, CO, USA
08/2017: A. Ahlert¹, A. Jahn, Poster at the International Glaciological Society "Polar Ice, Polar Climate, Polar Change" Conference, Boulder, USA

A summer ice-free Arctic by the end of the 21st century? A question of future emissions

- 08/2017:** A. Jahn, Talk at the International Glaciological Society meeting "Polar Ice, Polar Climate, Polar Change" in Boulder, USA

Assessing ocean circulation changes at the LGM using radiocarbon simulations with the iCESM

- 06/2017:** A. Schroeder¹, A. Jahn, Poster at the CESM workshop in Boulder, CO, USA
05/2017: A. Schroeder¹, A. Jahn, Poster at the Proxy System modeling and data assimilation in paleosciences workshop, Louvain-la-Neuve, Belgium

Predictability of Arctic sea ice under different emission scenarios

- 03/2017:** A. Jahn, Talk at the Polar Prediction workshop, Bremerhaven, Germany

A Past2K run with CESM

- 03/2017:** Y. Zhong¹, G. Miller, A. Jahn, A. Geirsdottir, Talk at the CESM Paleoclimate WG meeting, Boulder, CO, USA

Definitions Matter: Arctic Sea Ice Melt and Freeze Onset

- 06/2017:** A. Ahlert¹, A. Jahn, Poster at the Community Earth System Model Workshop, Boulder, USA
03/2017: A. Ahlert¹, A. Jahn, Poster at the Polar Prediction Workshop, Bremerhaven, Germany
02/2017: A. Ahlert¹, A. Jahn, Talk at the Community Earth System Model Working Group Meetings, Boulder, USA

Assessing sea ice melt season characteristics in the CESM Large Ensemble

12/2016: A. Ahlert¹, A. Jahn, Poster at the 2016 Earth & Space Science Student Poster conference, Boulder, CO, USA.

11/2016: A. Ahlert¹, A. Jahn, Poster at the FAMOS workshop in Woods Hole, USA.

06/2016: A. Ahlert¹, A. Jahn, Poster at the 21st CESM Workshop, Breckenridge, USA.

The Journey to a New ATOC Major: What do we want our students to learn?

10/2016: Nigro, M.A., D. Brown, A. Jahn*, N. Lovenduski, J.K. Lundquist, Poster at the 2016 TRESTLE Annual Meeting, Boulder, CO.

Internal variability in the Arctic freshwater budget as simulated by the CESM Large Ensemble

02/2018: R. Laiho¹, A. Jahn, Talk at the Ocean Sciences meeting, Portland, USA

11/2016: R. Laiho¹, A. Jahn, Poster at the FAMOS workshop in Woods Hole, USA

06/2016: R. Laiho¹, A. Jahn, Poster at the 21st CESM workshop in Breckenridge, USA

Studies of the AMOC strength in future and paleo simulations with the CESM

05/2016: A. Jahn, M. Holland, B. Otto-Bliesner, Poster at the Workshop on Connecting Paleo and Modern Oceanographic Data to Understand AMOC over Decades to Centuries in Boulder, USA

How predictable is the timing of a summer ice-free Arctic?

11/2016: A. Jahn, J. Kay, M. Holland, D. Hall, Poster at the FAMOS workshop in Woods Hole, USA

04/2016: A. Jahn, J. Kay, M. Holland, D. Hall, Talk at the EGU meeting in Vienna, Austria

Sea ice simulations for the Last Millennium - the role of internal versus forced variability

06/2016: A. Jahn, Poster at the 21st CESM workshop in Breckenridge, USA

04/2016: A. Jahn, Poster at the EGU meeting in Vienna, Austria

Influence of internal variability on sea ice predictability

02/2016: A. Jahn, J. Kay, M. Holland, D. Hall, Talk at the CESM PCWG winter meeting, Boulder, USA

12/2015: A. Jahn, J. Kay, M. Holland, D. Hall, Poster at the AGU fall meeting in San Francisco, USA

Investigating the mechanisms leading to synchronous snowline depression throughout the northern North Atlantic during the Late Holocene using the CESM

10/2015: A. Jahn, Talk at the ANATILS (Abrupt North Atlantic Transitions: Ice, Lakes, Sea) workshop in Boulder, USA

The Sea ice model intercomparison project for CMIP6

02/2015: A. Jahn, Talk at the CliC SSG meeting in Boulder, USA

02/2015: A. Jahn, Talk at the CESM Polar Climate WG meeting in Boulder, USA.

Uncertainty in predictions of Arctic sea ice

09/2014: A. Jahn, M. Holland, J. Kay, Poster presentation at the Royal Society discussion meeting in Buckinghamshire, UK.

06/2014: A. Jahn, M. Holland, J. Kay, Poster presentation at the CESM workshop in Breckenridge, USA.

Simulated carbon isotope distributions in the ocean model of the CESM

09/2014: A. Jahn, Keith Lindsay, Esther Brady, Bette Otto-Bliesner, Zhengyu Liu, Nicolas Gruber, Xavier Giraud, Oral presentation in the CGD Research Reports seminar series at NCAR, USA.

06/2014: A. Jahn, Keith Lindsay, Esther Brady, Bette Otto-Bliesner, Zhengyu Liu, Nicolas Gruber, Xavier Giraud, Oral presentation at the CESM workshop in Breckenridge, USA.

05/2014: A. Jahn, Keith Lindsay, Esther Brady, Bette Otto-Bliesner, Zhengyu Liu, Nicolas Gruber, Xavier Giraud, Oral presentation at the 2nd PMIP3 meeting in Namur, Belgium.

Arctic sea ice in the CESM large ensemble

01/2014: A. Jahn, M. Holland, J. Kay, Oral presentation at the Polar Climate WG winter meeting in Boulder, USA.

The isotope enabled CESM

05/2014: A. Jahn, Keith Lindsay, Esther Brady, Synte Peacock, Jiaxu Zhang, Bette Otto-Bliesner, Zhengyu Liu, Poster at the 2nd PMIP3 meeting in Namur, Belgium.

10/2012: A. Jahn, Keith Lindsay, Esther Brady, Synte Peacock, Jiaxu Zhang, Bette Otto-Bliesner, Zhengyu Liu, Oral presentation at the AOMIP/FAMOS workshop in Woods Hole, USA.

Implications of Arctic sea ice changes for North Atlantic deep convection and the MOC

02/2013: A. Jahn, M. Holland, Oral presentation at the CESM Polar Climate WG meeting in Boulder, USA.

Carbon isotopes in the iCESM

12/2014: A. Jahn, Keith Lindsay, Esther Brady, Bette Otto-Bliesner, Zhengyu Liu, Nicolas Gruber, Xavier Giraud, Poster presentation at the 2014 fall AGU meeting in San Francisco, USA.

03/2014: A. Jahn, Keith Lindsay, Esther Brady, Bette Otto-Bliesner, Zhengyu Liu, Nicolas Gruber, Xavier Giraud, Oral presentation at the 2014 spring Paleo WG meeting in Boulder, USA.

02/2014: A. Jahn, Keith Lindsay, Esther Brady, Bette Otto-Bliesner, Zhengyu Liu, Nicolas Gruber, Xavier Giraud, Poster at the 2014 AGU Ocean Sciences meeting in Honolulu, USA.

08/2013: A. Jahn, Keith Lindsay, Esther Brady, Bette Otto-Bliesner, Zhengyu Liu, Nicolas Gruber, Xavier Giraud, Oral presentation at the 2013 CESM tutorial in Boulder, USA.

06/2013: A. Jahn, Keith Lindsay, Esther Brady, Bette Otto-Bliesner, Zhengyu Liu, Nicolas Gruber, Xavier Giraud, Oral presentation at the CESM Paleo Climate WG meeting in Breckenridge, USA.

01/2013: A. Jahn, Keith Lindsay, Esther Brady, Bette Otto-Bliesner, Zhengyu Liu, Nicolas Gruber, Xavier Giraud, Oral presentation at the CESM Ocean Modeling WG meeting in Boulder, USA.

11/2012: A. Jahn, Keith Lindsay, Esther Brady, Bette Otto-Bliesner, Zhengyu Liu, Nicolas Gruber, Xavier Giraud, Oral presentation at the SynTraCe workshop in Providence, USA.

10/2012: A. Jahn, Keith Lindsay, Esther Brady, Bette Otto-Bliesner, Zhengyu Liu, Nicolas Gruber, Xavier Giraud, Oral presentation in the CGD Research Reports at NCAR in Boulder, USA.

21st century Arctic September sea-ice extent: concentration, trends, and variability

04/2012: A. Jahn, M. Holland, J. Kay, Poster at the IPY conference in Montreal, Canada.

Data needs for sea ice models

02/2013: A. Jahn, Oral presentation at the CliC Steering Committee Meeting in Potsdam, Germany.

11/2011: A. Jahn, Oral presentation at the CliC sea ice workshop in Boulder, USA.

How robust are model results of the seasonal cycle of Arctic freshwater export?

11/2011: A. Jahn, Oral presentation at the AOMIP workshop in Woods Hole, USA.

Late 20th century simulation of Arctic sea-ice and ocean properties in the CCSM4

10/2011: A. Jahn, K. Sterling, M. M. Holland, J. E. Kay, J. A. Maslanik, C. M. Bitz, D. A. Bailey, J. Stroeve, E. C. Hunke, W. H. Lipscomb, Poster at the WCRP climate conference in Denver, USA,.

06/2011: A. Jahn, K. Sterling, M. M. Holland, J. E. Kay, J. A. Maslanik, C. M. Bitz, D. A. Bailey, J. Stroeve, E. C. Hunke, W. H. Lipscomb, Oral presentation at the IUGG conference in Melbourne, Australia.

- 03/2011: A. Jahn**, K. Sterling, M. M. Holland, J. E. Kay, J. A. Maslanik, C. M. Bitz, D. A. Bailey, J. Stroeve, E. C. Hunke, W. H. Lipscomb, Poster at the Gordon Polar Marine Sciences Conference in Ventura, USA.
- 02/2011: A. Jahn**, K. Sterling, M. M. Holland, J. E. Kay, J. A. Maslanik, C. M. Bitz, D. A. Bailey, J. Stroeve, E. C. Hunke, W. H. Lipscomb, Oral presentation at the CCSM Polar Climate WG meeting in Boulder, USA.

Seasonal cycle of the Fram Strait freshwater export: A model perspective

- 06/2011: A. Jahn**, L. B. Tremblay, R. Newton, M. M. Holland, L. A. Mysak, Oral presentation at IUGG conference in Melbourne, Australia.
- 06/2010: A. Jahn**, L. B. Tremblay, R. Newton, M. M. Holland, L. A. Mysak, Oral presentation at IPY Oslo conference in Oslo, Norway.
- 03/2010: A. Jahn**, L. B. Tremblay, R. Newton, M. M. Holland, L. A. Mysak, Poster at the “State of the Arctic” conference in Miami, USA.

Future freshwater export from the Arctic according to GCM scenarios

- 10/2010: A. Jahn**, L. B. Tremblay, R. Newton, M. M. Holland, L. A. Mysak, Oral presentation at the AOSB-ASOF Workshop on the integrated Arctic Ocean Observing System in Woods Hole, USA.

Comparison of the simulated Arctic freshwater export variability from different models

- 10/2010: A. Jahn**, L. B. Tremblay, R. Newton, M. M. Holland, L. A. Mysak, Oral presentation at the 14th AOMIP workshop in Woods Hole, USA.

Arctic FW budget in the CCSM4 - a first look

- 07/2010: A. Jahn**, L. B. Tremblay, R. Newton, M. M. Holland, L. A. Mysak, Oral presentation at the CESM Polar Climate WG meeting in Breckenridge, USA.

Changes in the freshwater export from the Arctic under doubling of CO₂

- 06/2010: A. Jahn**, L. B. Tremblay, R. Newton, M. M. Holland, L. A. Mysak, Oral presentation at the IPY Oslo conference in Oslo, Norway.
- 03/2010: A. Jahn**, L. B. Tremblay, R. Newton, M. M. Holland, L. A. Mysak, Poster at the “State of the Arctic” conference in Miami, USA.

Mentor panel discussions - an easy way to get people talking

- 06/2010: A. Jahn**, Penelope Wagner, Harry Borlase, Jenny Baeseman, Poster at the IPY conference in Oslo, Norway.

Arctic freshwater export variability: A detailed model study

- 02/2010: A. Jahn**, L. B. Tremblay, R. Newton, M. M. Holland, L. A. Mysak, Oral presentation at the CESM Polar WG meeting in Boulder, USA.
- 12/2009: A. Jahn**, L. B. Tremblay, R. Newton, M. M. Holland, L. A. Mysak, Poster at the AGU fall meeting in San Francisco, USA.

Comparison of Arctic freshwater export variability from different models - A first look

- 10/2009: A. Jahn**, Oral presentation at the 13th AOMIP workshop in Woods Hole, USA.

Arctic freshwater pathways and freshwater export variability

- 07/2009: A. Jahn**, L. B. Tremblay, R. Newton, M. M. Holland, L. A. Mysak, Oral presentation at the MOCA-09 conference in Montreal, Canada.
- 06/2009: A. Jahn**, L. B. Tremblay, R. Newton, M. M. Holland, L. A. Mysak, Oral presentation at the CMOS conference in Halifax, Canada.

Effect of the large-scale atmospheric circulation on Arctic Ocean freshwater exchange

- 01/2009: A. Jahn**, L. B. Tremblay, R. Newton, L. A. Mysak, Oral presentation at the 12th AOMIP workshop in Woods Hole, USA.
- 04/2008: A. Jahn**, L. B. Tremblay, R. Newton, L. A. Mysak, Oral presentation at the EGU meeting in Vienna, Austria.
- 01/2008: A. Jahn**, L. B. Tremblay, R. Newton, L. A. Mysak, Oral presentation at the CESM Polar Climate WG meeting in Boulder, USA.

Interannual variability in the Arctic Ocean freshwater balance

- 07/2007:** A. Jahn, L. B. Tremblay, R. Newton, L. A. Mysak, Poster at the international sea ice summer school in Svalbard, Norway.
- 05/2007:** A. Jahn, L. B. Tremblay, R. Newton, L. A. Mysak, Oral presentation at the CMOS /CGU/AMS conference in St. John's, Canada.

Freshwater storage changes in the Arctic Ocean

- 03/2007:** A. Jahn, L. B. Tremblay, R. Newton, L. A. Mysak, Oral presentation at the McGill Graduate Student Research Symposium, Montreal, Canada.

Freshwater in the Arctic Ocean

- 09/2006:** A. Jahn, L. B. Tremblay, R. Newton, L. A. Mysak, Oral presentation at the Bjerknes summer school on multidecadal climate variability and teleconnection dynamics in Bergen, Norway.
- 06/2006:** A. Jahn, L. B. Tremblay, R. Newton, L. A. Mysak, Oral presentation in the polar research group at Lamont-Doherty Earth Observatory, Columbia University, New York, USA.

Contribution of vegetation dynamics to climate variations during MIS 3/2

- 06/2006:** A. Jahn, M. Claussen, A. Ganopolski, V. Brovkin, Poster at the CMOS conference in Toronto, Canada.

Quantifying the effect of vegetation dynamics on the climate of the LGM

- 06/2005:** A. Jahn, M. Claussen, A. Ganopolski, V. Brovkin, Oral presentation at the CMOS conference in Vancouver, Canada.

TEACHING ACTIVITIES

Courses taught at CU-Boulder

CU's student teaching evaluations are called "Faculty Course Questionnaire" (FCQ), maximum score 6.0. Newly developed 3 credit classes are underlined

- ATOC6800 **Scientific Writing, Fall 2019**, newly developed 3 credit graduate course, with 7 graduate students. Instructor FCQ: 5.86, Course FCQ: 5.71.
- ATOC4850/
ATOC5850 **Numerical methods and modeling, Spring 2018 & Spring 2019**, newly developed 3 credit methods course, cross-listed undergraduate and graduate, with 19 & 11 students, instructor FCQ: 5.59 & 5.67, Course FCQ: 5.06 & 5.56.
- ATOC5051 **Introduction to Physical Oceanography, Fall 2016 & 2017 & 2018**, 3 credit core graduate course for ATOC students, 9 & 13 & 9 students. Instructor FCQs: 5.9 & 5.15 & 5.22, Course FCQ: 5.6 & 4.92 & 5.11.
- ATOC1060 **Our changing environment, Spring 2015 & Spring 2017**, 3 credit introduction to climate course for non-science majors, in 2017 with weekly recitations, with 100 & 106 students (2015 & 2017). Instructor FCQs: 4.3 & 5.3, Course FCQ: 4.3 & 4.8.

Seminars taught at CU-Boulder

- ATOC6020 **Career Development, Fall 2018**, 1 credit seminar, Fall 2018. One of two faculty advisors for a seminar with 18 graduate students on career development, initiated and led by a graduate student.
- ATOC6020 **Science Communication, Spring 2018**, 1 credit seminar, Spring 2018. Faculty advisor for a seminar with 15 students on science communication, initiated and led by three graduate students.

ATOC6020 Climate Modeling Seminar, Fall 2016, Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019, 1 credit seminar, with the topics statistical methods for ensemble simulations (fall 2016), scientific writing (spring 2017), scientific networking (fall 2017), career planning (spring 2018), research tools (fall 2018), presentation skills (spring 2019) for 2–4 students.

Other teaching activities

2019 **Invited polar modeling expert at the CESM Polar Modeling Workshop**, discussed and reviewed polar modeling proposals with students, NCAR, Boulder, USA.

2018 **Invited International Polar Climate Summer School lecturer**, lectures/talks on Arctic sea ice change and Arctic climate projections, Nanjing, China.

2017 **Invited guest lecturer on Paleoclimate**, Academy of Livelong Learning in Denver in the class “Our Biosphere: Past and future”.

2017 **Invited Arctic summer school lecturer**, lectures/talks on Climate Modeling, Arctic sea ice projections, and Sea ice model assessment and student mentoring at the “Connaught Summer Institute in Arctic Science: Atmosphere, Cryosphere, and Climate”, Alliston, Canada.

2014 **Teaching methods workshop at NCAR**, participant in a two day teaching methods workshop at NCAR, with a focus on active learning techniques.

2013–2014 **UCAR Science Education Program Staff (SPARK)**, gave several dozen of the public tours at NCAR, to visitors, K-12 student groups, and community groups and participated in school group classroom instruction.

2012 **Facilitator in the NCAR Research Experience Teacher’s Institute**, facilitated the online course “Earth System Science: A Climate Change Perspective” and worked with the teachers on their class modules during the three-week in-residence program.

2011 **Guest lecturer on Polar climate at Howard University**, two guest lectures in the graduate level class ATMOS 201 in the Department for Physics and Astronomy at Howard University, USA.

2010 -2011 **NCAR Girl Scout day**, Science lecturer (2010) and main organizer (2011)

2008 **Graduate course on research-based teaching methods**, 3 credits, “Teaching and Learning in Higher Education” (EDPH689), McGill University, Canada.

2006 **Teaching assistant for “Introduction into Ocean Sciences”** at McGill University.

Advising of Students and Postdocs

¹ = Jahn as primary advisor for student or postdoc

² = Jahn as co-advisor/mentor for student or postdoc

Postdocs advised (2)

09/2019– **Hannah Zanowski¹**

2016–2018 **Yafang Zhong¹**

- 50% appointment for 18 months; worked remotely from University of Wisconsin-Madison
- co-advised with G. Miller & A. Geirsdottir

Graduate students advised (7)

05/2020– **Chris Wyburn-Powell¹**

2017– **Patricia DeRepentigny¹**

2017 **Aaron Schroeder¹**

2017–2019 **Mark England²**

- PhD 2019, primary advisor Lorenzo Polvani, Columbia Univ.

2017– **Abigail Smith¹(previously Ahlert)**

- 2016–2018 **Rory Laiho**¹
- MS 2017
- 2016–2018 **Sifan Gu**²
- PhD 2018, primary advisor Zhengyu Liu, Univ. Wisconsin

Undergraduate students advised (2)

- 2017–2018 **Kerrie Ellzey**¹(previously Dochen)
- Physics major, 9 month research internship on Arctic sea ice
- 2010 **Daniel Pollak**²
- SOARS undergraduate summer student at NCAR on Arctic sea ice

Committee member at CU (8)

- 2020– **Eric Keenan**, ATOC PhD committee member
- 2020– **Jed Lenetsky**, Geological Sciences, Master thesis committee member
- 2019 **Marissa Dattler**, ATOC Master thesis defense committee member
- 2019 **David Harning**, Geological Sciences, PhD defense committee member
- 2018– **Meghan Helmberger**, Geography PhD committee member
- 2018–2020 **Sean Horvath**, Civil, Environmental & Architectural Engr., PhD committee member
- 2017–2019 **Michael Drew Cameron**, ATOC Master thesis committee member
- 2016–2019 **Michael Gallagher**, ATOC PhD committee member

Host of visitor to research group (1)

- 2018 **Clara Burgard**, 2 month visit, PhD student with Dirk Notz at MPI Hamburg

SERVICE COMMUNITY SERVICE

- 2019 **Organizer of 2019 SIMIP workshop**, Winnipeg, Canada
- 2019 **Session chair at the 15th AMS Polar Conference**, Boulder, USA
- 2019 **NOAA proposal review panelist**
- 2018–2019 **Science Requirements Advisory Panel for NCAR’s next supercomputer**
- Since 2018 **Co-lead of one of the WCRP-Polar Climate Predictability Initiatives**, Theme “Improve knowledge and understanding of past polar climate variations (100+ years)”, <http://www.climate-cryosphere.org/wcrp/pcpi/themes/836-past-polar-climate>.
- Since 2018 **Advisory Board member for the DOE project HiLAT-RASM**
- Since 2018 **US-CLIVAR Paleo AMOC Task Team member**, <https://usclivar.org/amoc/organization/task-team-5-paleo-amoc>.
- 2018 **Expert reviewer for IPCC reports**, Reviewed chapters in special IPCC reports (Global Warming of 1.5 °C; Ocean and Cryosphere in a Changing Climate).
- 2018 **External reviewer for two scientific promotion/hiring decisions**
- 2018 **Session convenor and chair at POLAR2018**, Davos, Switzerland, session “Sea ice Modeling and Prediction”
- 2017 **Co-organizer of the 2017 Polar prediction & SIMIP workshop**, Bremerhaven, Germany
- 2015 **Organizer of CliC SSG annual meeting**, Boulder, USA
- 2014 **Co-Organizer of the 2014 SIMIP workshop/ Large-Scale Sea-Ice Simulations Workshop**, Reading, UK
- Since 2014 **Co-chair of Sea ice MIP (SIMIP) for CMIP6**, <https://www.wcrp-climate.org/modelling-wgcm-mip-catalogue/cmip6-endorsed-mips-article/1056-modelling-cmip6-simip>

- Since 2014** **Co-chair of Sea ice and Climate Modeling Forum of CliC-WCRP**, <http://www.climate-cryosphere.org/activities/seaicemodeling>
- 2014–2018** **WCRP-CliC steering committee member**
- 2015** **Session convener at IUGG 2015, Prague, Czech Republic**, proposed and organized session on “Evaluation of the Cryosphere in CMIP5 Models”, but could not chair it due to parental leave.
- Since 2011** **Proposal reviewer for NSF**
- 2011–2012** **Co-convenor and co-chair at IPY 2012**, session “Diminishing snow and ice”, Montreal, Canada.
- 2011–2012** **Co-chair at 2011 IUGG**, session “Future state of the Arctic and potential impact”, Melbourne, Australia.
- 2010** **NSF proposal review panelist**
- 2010–2011** **Member of the IUGG Advisory Group of Young Scientists**, IAPSO representative
- 2009–2010** **Main organizer of a two-day Association for Polar Early Career Scientists (APECS) career development workshop** before the IPY conference, Oslo, Norway.
- 2009** **Organizer of an APECS career panel at the MOCA-2009 conference**, Montreal, Canada.
- Since 2008** **Reviewer for journal articles**

Last updated: July 29, 2020