

CURRICULUM VITAE: JOHN J. CASSANO

Education

Ph.D., 1998: Atmospheric Science, University of Wyoming, Laramie, Wyoming

M.S., 1994: Atmospheric and Oceanic Science, University of Wisconsin, Madison, Wisconsin

B.S., 1992: Earth Science, Montana State University, Bozeman, Montana

Professional Positions

August 2020 – present: Professor, Department of Atmospheric and Oceanic Sciences, University of Colorado, Boulder, Colorado

November 2020 – present: Lead scientist, National Snow and Ice Data Center, Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, Colorado

January 2004 - present: Fellow of the Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, Colorado

August 2010 – August 2020: Associate Professor, Department of Atmospheric and Oceanic Sciences, University of Colorado, Boulder, Colorado

January 2004 - August 2010: Assistant Professor, Department of Atmospheric and Oceanic Sciences, University of Colorado, Boulder, Colorado

May 2002 - December 2003: Research Scientist II, Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, Colorado

March 2001 - May 2002: Research Scientist I, Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, Colorado

January 1999 - February 2001: Research Associate, Byrd Polar Research Center, Ohio State University, Columbus, Ohio

January 1999 - June 2000: Byrd Post-doctoral Fellow, Byrd Polar Research Center, Ohio State University, Columbus, Ohio (supervisor: David H. Bromwich)

September 1995 - December 1998: Graduate Research Assistant and Teaching Assistant, Department of Atmospheric Sciences, University of Wyoming, Laramie, Wyoming (advisor: Thomas R. Parish)

September 1992 - August 1995: Graduate Research Assistant, Department of Atmospheric and Oceanic Sciences, University of Wisconsin, Madison, Wisconsin (advisor: Charles R. Stearns)

Professional Service Activities

National, International and Governmental Organizations

2020 - present: member, World Climate Research Programme (WCRP) Coordinated Regional Downscaling Experiment (CORDEX) Science Advisory Team

2016 - present: United States representative, physical sciences working group, Scientific Committee on Antarctic Research (SCAR)

2013 - present: Member, International Commission on Polar Meteorology, International Meteorology and Atmospheric Science Association

2011 - present: Section editor, *Polar Research*

2011 - present: Co-coordinator for polar Coordinated Regional Downscaling Experiment (CORDEX) activities

2013 - 2020: Member, science steering committee, International Society for Atmospheric Research using Remotely-piloted Aircraft

2013 - 2019: Member United States National Academies of Science Polar Research Board

2017 - 2018: Member, National Science Foundation's Advisory Committee for the Office of Polar Programs (NSF AC-OPP)

2016 - 2018: Member, NCAR's Computational and Information Systems Laboratory (CISL) High Performance Computing (HPC) Allocation Panel

2015 - 2018: Vice-chair, International Arctic Science Committee atmosphere working group

2014: Discussion and writing lead, Scientific Committee on Antarctic Research (SCAR) Horizon Scan atmosphere theme

2013: Chair, National Science Foundation committee of visitors, Antarctic Sciences Section / Antarctic Infrastructure and Logistics Section

2010 - 2015: Member of International Arctic Science Committee atmosphere working group

2012-2013: Member, American Meteorological Society's Committee on Polar Meteorology and Oceanography
2011 - 2013: Member of Arctic Climate System Network steering committee, International Arctic Science Committee
2011 - 2012: Member of committee on the Legacies and Lessons of International Polar Year 2007-2008
2011 - lead convener, American Meteorological Society 11th Conference on Polar Meteorology and Oceanography
2010 - 2011: Chair, American Meteorological Society's Committee on Polar Meteorology and Oceanography
2009 - 2011: Advisory editor, *Antarctic Science*
2007 - 2009: Member, Arctic-CHAMP (Community-wide Hydrologic Analysis and Monitoring Program) science steering committee
2003 - 2009: Member American Meteorological Society's Committee on Polar Meteorology and Oceanography
May 2008: Member, Arctic System Model workshop organizing committee

Co-organizer / convener of multiple sessions at American Meteorological Society, American Geophysical Union and International Union of Geophysics and Geodesy conferences

Reviewer for *Advances in Polar Science*, *Antarctic Science*, *Atmosphere-Ocean*, *Atmospheric Chemistry and Physics*, *Atmospheric Measurement Techniques*, *Bulletin of the American Meteorological Society*, *Boundary Layer Meteorology*, *Climate Dynamics*, *Computing in Science and Engineering*, *Environmental Research Letters*, *Geophysical Research Letters*, *Global and Planetary Change*, *International Journal of Climatology*, *Journal of Advances in Modeling Earth Systems*, *Journal of Applied Meteorology and Climatology*, *Journal of Atmospheric and Oceanic Technology*, *Journal of Atmospheric Science*, *Journal of Climate*, *Journal of Geophysical Research*, *Journal of Glaciology*, *Journal of Hydrometeorology*, *Monthly Weather Review*, *Nature*, *Nature Geoscience*, *Polar Geography*, *Polar Research*, *Quarterly Journal of the Royal Meteorological Society*, *Science*, *Tellus*, *Weather and Forecasting*

Reviewer Grant Proposals for National Science Foundation (USA), National Aeronautics and Space Administration (USA), Australian Antarctic Division, Canadian Foundation for Climate and Atmospheric Sciences, European Science Foundation, French National Agency of Research (ANR), National Environmental Research Council (United Kingdom), National Science and Engineering Research Council (Canada), New Zealand Antarctic Research Institute (New Zealand), Programma Nazionale di Ricerche in Antartide (Italy), Scientific Committee on Antarctic Research

Current University Service Activities (2018-2019 academic year)

Department

Chair, ATOC program allocation and major funds committee
Member, ATOC examinations committee
Member, ATOC curriculum committee
Chair, Zhen Wang post tenure review committee
Member, Kris Karnauskas post tenure review committee

Institute

Member, CIRES Council of Fellows
Member, CIRES executive committee
Chair, Graduate fellowship committee

Professional Societies

1993 - present: American Meteorological Society
2001 - present: American Geophysical Union

Scholarships and Awards

2022: NOAA Bronze Medal for Scientific or Engineering Achievement “for extraordinary contributions to the year-long Multidisciplinary Drifting Observatory for the Study of Arctic Climate (MOSAIC) polar expedition”

2019: University of Colorado Boulder Faculty Assembly Excellence in Research, Scholarly, and Creative Work award

2012: Erskine Visiting Fellowship, Department of Physics and Astronomy, University of Canterbury, Christchurch, New Zealand

2008: NSF Travel Grant to attend the Scientific Committee on Antarctic Research (SCAR) Open Science Meeting, St. Petersburg, Russia

2006: NSF Travel Grant to attend the Scientific Committee on Antarctic Research (SCAR) Open Science Meeting, Hobart, Australia

2001: AGU Travel Grant to attend 8th Scientific Assembly of the International Association of Meteorology and Atmospheric Sciences, Innsbruck, Austria

2000: AMS Travel Grant to attend 6th International Conference on Southern Hemisphere Meteorology and Oceanography, Santiago, Chile

1999 - 2000: Byrd Fellowship, Byrd Polar Research Center, The Ohio State University

1992 - 1993: Schwerdtfeger Award, Atmospheric and Oceanic Sciences Department, University of Wisconsin

1992 - 1993: WARF Fellowship, Graduate School, University of Wisconsin

1991 - 1992: Milton J. Edie Scholarship, Earth Science Department, Montana State University

1987: New York State Regents Scholarship

Publications

- ¹ graduate student in Cassano research group
- ² post-doctoral research scientist in Cassano research group
- ³ associate / research scientist in Cassano research group

Refereed publications (in preparation or under review)

Wickström, S, J.J. Cassano, M.O. Jonassen and T. Vihma, 2023: Air temperature and precipitation trends in Svalbard affected by sea ice decline and changes in atmospheric circulation. *J. Geophys. Res.*, in prep.

Valkonen, E., J. Cassano, E. Cassano and M. Seefeldt, 2023: Declining sea ice and its relationship with Arctic cyclones in current and future climate. Part II: Future climatology in CMIP6 models, in prep.

Jozef, G., R. Rauterkus, J. Cassano, G. de Boer, S. Dahlke, M. Shupe, C. Cox, 2023: Atmospheric boundary layer characteristics during the MOSAIC expedition. *Earth System Science Data*, in prep.

Jozef, G., J.J. Cassano, S. Dahlke, M. Dice, C. Cox and G. de Boer, 2023: An overview of the vertical structure of the atmospheric boundary layer in the central Arctic during MOSAIC. *Atmospheric Chemistry and Physics*, in prep.

Jozef, G. J.J. Cassano, S. Dahlke, M. Dice, C. Cox and G. de Boer, 2023: Thermodynamic and kinematic drivers of boundary layer atmospheric stability in the central Arctic during MOSAIC. *Atmospheric Chemistry and Physics*, in prep.

Valkonen, E., J. Cassano, E. Cassano and M. Seefeldt, 2023: Declining sea ice and its relationship with Arctic cyclones in current and future climate. Part I: Current climatology in CMIP6 models, *Weather and Climate Dynamics*, submitted.

Seefeldt, M.W., J.J. Cassano, Y.J. Lee, W.M. Maslowski and A.P. Craig and R. Osinski, 2023: Evaluation of dynamical downscaling in a fully coupled regional climate model. *Journal of Advances in Modeling Earth Systems*, submitted.

Calmer, R., G. de Boer, J. Hamilton, D. Lawrence, M. Webster, N. Wright, M.D. Shupe, C. Cox, J. Cassano, 2023: On relationships between summertime surface albedo and melt pond fraction in the central Arctic Ocean, *Elementa*, submitted.

Egerer, U, J. J. Cassano, M. D. Shupe, G. de Boer, D. Lawrence, A. Dodhi, H. Siebert, G. Jozef, R. Calmer and J. Hamilton, 2023: Estimating turbulent energy flux vertical profiles from uncrewed aircraft system measurements: Exemplary results for the MOSAIC campaign. *Atmospheric Measurement Techniques*, submitted.

Refereed publications (published or in press)

- Lee, Y.J., W. Maslowski, J.J. Cassano, J. Clement Kinney, A.P. Craig, S. Kamal, R. Osinski, M.W. Seefeldt, J. Stroeve and H. Wang, 2022: Causes and evolution of winter polynyas north of Greenland. *The Cryosphere*, **17**, 233-253, doi:10.5194/tc-17-233-2023..
- Dice, M.J and J.J. Cassano, 2022: Assessing physical relationships between atmospheric state, fluxes, and boundary layer stability at McMurdo Station, Antarctica, *J. Geophys. Res.*, **127**, e2021JD036075, doi:10.1029/2021JD036075.
- de Boer, G, R. Calmer, G. Jozef, J.J. Cassano, J. Hamilton, D. Lawrence, S. Borenstein, A. Doddi, C. Cox, J. Schmale, A. Preußner and B. Argrow, 2022: Observing the central Arctic atmosphere and surface with University of Colorado uncrewed aircraft systems, *Nature Scientific Data*, **9**, 439, doi:10.1038/s41597-022-01526-9..
- Jozef, G, J. Cassano, S. Dahlke and G de Boer, 2022: Testing the efficacy of atmospheric boundary layer height detection algorithms using uncrewed aircraft system data from MOSAiC. *Atmospheric Measurement Techniques*, **15**, 4001-4022, doi:10.5194/amt-15-4001-2022.
- Kingsmill, D.E., M.W. Seefeldt and J.J. Cassano, 2022: Mesoscale evaluation of AMPS using AWARE radar observations of a wind and precipitation event over the Ross Island region of Antarctica. *Quart. J. Roy. Met. Soc.*, **148**, 2607-2630, doi:10.1002/qj.4327.
- Dethloff, K., W. Maslowski, S. Hendricks, Y. Lee, H.F. Goessling, T. Krumpfen, C. Haas, D. Handorf, R. Ricker, V. Bessonov, J.J. Cassano, J. Clement Kinney, R. Osinski, M. Rex, A. Rinke, J. Sokolova, A. Sommerfeld, 2022: Arctic sea ice anomalies during the MOSAiC winter 2019/20. *Cryosphere*, **16**, 981-1005, doi:10.5194/tc-16-981-2022.
- Shupe, MD, Rex, M, Blomquist, B, Persson, POG, Schmale, J, Uttal, T, Althausen, D, Angot, H, Archer, S, Bariteau, L, Beck, I, Bilberry, J, Bucci, S, Buck, C, Boyer, M, Brasseur, Z, Brooks, IM, Calmer, R, Cassano, J, Castro, V, Chu, D, Costa, D, Cox, CJ, Creamean, J, Crewell, S, Dahlke, S, Damm, E, de Boer, G, Deckelmann, H, Dethloff, K, Dütsch, M, Ebell, K, Ehrlich, A, Ellis, J, Engelmann, R, Fong, AA, Frey, MM, Gallagher, MR, Ganzeveld, L, Gradinger, R, Graeser, J, Greenamyre, V, Griesche, H, Griffiths, S, Hamilton, J, Heinemann, G, Helmig, D, Herber, A, Heuzé, C, Hofer, J, Houchens, T, Howard, D, Inoue, J, Jacobi, H-W, Jaiser, R, Jokinen, T, Jourdan, O, Jozef, G, King, W, Kirchgaessner, A, Klingebiel, M, Krassovski, M, Krumpfen, T, Lampert, A, Landing, W, Laurila, T, Lawrence, D, Lonardi, M, Loose, B, Lüpkes, C, Maahn, M, Macke, A, Maslowski, W, Marsay, C, Maturilli, M, Mech, M, Morris, S, Moser, M, Nicolaus, M, Ortega, P, Osborn, J, Pätzold, F, Perovich, DK, Petäjä, T, Pilz, C, Pirazzini, R, Posman, K, Powers, H, Pratt, KA, Preußner, A, Quéléver, L, Radenz, M, Rabe, B, Rinke, A, Sachs, T, Schulz, A, Siebert, H, Silva, T, Solomon, A, Sommerfeld, A, Spreen, G, Stephens, M, Stohl, A, Svensson, G, Uin, J, Viegas, J, Voigt, C, von der Gathen, P, Wehner, B, Welker, JM, Wendisch, M, Werner, M, Xie, ZQ, Yue, F. 2022. Overview of the MOSAiC expedition—Atmosphere. *Elementa: Science of the Anthropocene*, **10**, doi:10.125/elementa.2021.00060.
- Bromwich, D.H, M.A. Lazzara, A.M. Cayette, J.G. Powers, K. Werner, J.J. Cassano, S.R. Colwell, S. Carpentier and X. Zou, 2021: The 16th workshop on Antarctic Meteorology and Climate and 6th Year of Polar Prediction in the Southern Hemisphere meeting. *Advances in Atmospheric Science*, doi:10.1007/s00376-021-1384-4.
- Spinoni, J., P. Barbosa, E. Bucchignami, J. Cassano, T. Cavazos, A. Cescatti, J.H. Christensen, O.B. Christensen, E. Coppola, J.P. Evans, G. Forzieri, B. Geyere, F. Giorgi, D. Jacob, J. Katzfey, T. Koenigk, R. Laprise, C.J. Lennard, M. Levent Kurnaz, D. Li, M. Llopart, N. McCormick, G. Naumann, G. Nikulin, T. Ozturk, H-J. Pantiz, R. Porfirio da Rocha, S.A. Solman, J. Syktus, F. Tangang, C. Teichmann, R. Vautard, J.V. Vogt, K. Winger, G. Zittis, and A. Dosio, 2021: Global exposure of population and land-use to meteorological droughts under different warming levels and SSPs: A CORDEX-based study. *International Journal of Climatology*, 1-28. doi:10.1002/joc.7302.
- Rinke, A., J.J. Cassano, E.N. Cassano, R. Jaiser, D. Handorf, 2021: Meteorological conditions during the MOSAiC expedition: Normal or anomalous? *Elementa: Science of the Anthropocene*, **9**, doi:10.1525/elementa.2021.00023.
- Valkonen, E., J. Cassano and E. Cassano, 2021: Arctic cyclones and their interactions with the declining sea ice: A recent climatology. *J. Geophys. Res.*, **126**, e2020JD034366, doi:10.1029/2020JD034366.

- Cassano, J.J., M.A. Nigro, M.W. Seefeldt, M. Katurji, K. Guinn, G. Williams and A. DuVivier, 2021: Antarctic atmospheric boundary layer observations with the Small Unmanned Meteorological Observer (SUMO). *Earth System Science Data*, **13**, 969-982, doi:10.5194/essd-13-969-2021.
- Inoue, J., K. Sato, A. Rinke, J.J. Cassano, X. Fettweis, G. Heinemann, H. Matthes, A. Orr, T. Phillips, M. Seefeldt and A. Solomon, 2021: Clouds and radiation processes in regional climate models evaluated using observations over the ice-free Arctic Ocean. *J. Geophys. Res.*, **126**, e2020JD033904, doi:10.1029/2020JD033904.
- Wenta, M. and J.J. Cassano, 2020: The atmospheric boundary layer and surface conditions during katabatic wind events over the Terra Nova Bay polynya. *Remote Sensing*, **12**, 4160, doi:10.3990/rs12244160..
- Wickström, S., M.O. Jonassen, J.J. Cassano and T. Vihma, 2020: Present temperature, precipitation, and rain-on-snow climate in Svalbard. *J. Geophys. Res.*, **125**, e2019JD032155, doi:10.1029/2019JD032155.
- Ackley, S.F., S. Stammerjohn, T. Maksym, M. Smith, J. Cassano, P. Guest, J.-L. Tison, B. Delille, B. Loose, P. Sedwick, L. DePace, L. Roach and J. Parno, 2020: Sea-ice production and air/ice/ocean/biogeochemistry interactions in three Ross Sea during the PIPERS 2017 autumn field campaign. *Annals of Glaciology*, doi:10.1017/aog.2020.31.
- Spinoni, J., P. Barbosa, E. Bucchignani, J. Cassano, T. Cavazos, J.H. Christensen, O.B. Christensen, E. Coppola, J. Evans, B. Geyer, F. Giorgi, P. Hadjinicolaou, D. Jacob, J. Katzfey, T. Koenigk, R. Laprise, C.J. Lennard, M. Levent Kurnaz, D. Li, M. Llopart, N. McCormick, G. Naumann, G. Nikulin, T. Ozturk, H.-J. Panitz, R. Porfirio da Rocha, B. Rockel, S.A. Solman, J. Syktus, F. Tangang, C. Teichmann, R. Vautard, J.V. Vogt, K. Winger, G. Zittis, and A. Dosio, 2020: Future global meteorological drought hotspots. A study based on CORDEX data. *J. Clim.*, **33**, 3635-3661, doi:10.1175/JCLI-D-19-0084.1.
- Kuma, P., A. McDonald, O. Morgenstern, S.P. Alexander, J.J. Cassano, S. Garrett, J. Halla, S. Hartery, M.J. Harvey, S. Parsons, G. Plank, V. Varma, and J. Williams, 2020: Evaluation of Southern Ocean cloud in the HadGEM3 general circulation model and MERRA-2 reanalysis using ship-based observations. *Atmos. Chem. Phys.*, **20**, 6607-6630, doi:10.5194/acp-20-6607-2020.
- Lazzara, M.A., S.A. Orendorf, T.P. Norton, J.G. Powers, D.H. Bromwich, S. Carpentier, J.J. Cassano, S.R. Colwell, A.M. Cayette and K. Werner, 2020: The 13th and 14th workshops on Antarctic meteorology and climate. *Adv. in Atmos. Science*, **37**, 423-430, doi:10.1007/s00376-019-9215-6.
- Sedlar, J., M. Tjernström, A. Rinke, A. Orr, J. Cassano, X. Fettweis, G. Heinemann, M. Seefeldt, A. Solomon, H. Matthes, T. Phillips, and S. Webster, 2020: Confronting Arctic troposphere, clouds and surface energy budget representations in regional climate models with observations. *J. Geophys. Res.*, **124**, doi:10.1029/2019JD031783.
- Kennicutt, M.C., D. Bromwich, D. Liggett, B. Njåstad, L. Peck, S.R. Rintoul, C. Ritz, M.J. Siebert, A. Aitken, C. Brooks, J. Cassano, S. Chaturvedi, D. Chen, K. Dodds, N.R. Golledge, C. Le Bohec, M. Leppe, A. Murray, P.C. Nath, M.N. Raphael, M. Rogan-Finnemore, D.M. Schroeder, L. Talley, T. Trouvillon, D.G. Vaughn, L. Wang, A.T. Weatherwax, H. Yang and S.L. Chown, 2019: Sustained Antarctic Research: A 21st century imperative. *One Earth*, **1**, 95-113, doi:10.1016/j.oneear.2019.08/014.
- de Boer, G., B. Agrow, J. Cassano, J. Cione, E. Frew, D. Lawrence, G. Wick, and C. Wolff, 2019: Advancing unmanned aerial capabilities for atmospheric research. *Bull. Amer. Meteor. Soc.*, **100**, ES105-ES108, doi:10.1175/BAMS-D-18-0254.1.
- Akperov, M., A. Rinke, I.I. Mokhov, H. Matthes, V.A. Semenov, M. Adakudlu, J. Cassano, J.H. Christensen, M.A. Dembitskaya, K. Dethloff, X. Fettweis, J. Glisan, O. Gutjahr, G. Heinemann, T. Koenigk, N.V. Koldunov, R. Laprise, R. Mottram, O. Nikiéma, J.F. Scinocca, D. Sein, S. Sobolowski, K. Winger, and W. Zhang, 2019: Trends of intense cyclone activity in the Arctic from reanalyses data and regional climate models (Arctic-CORDEX). *IOP Conference Series: Earth and Environmental Sciences*, **231**, 012003, doi:10.1088/1755-1315/231/1/012003.
- Mateling, M.E. M.A. Lazzara, L.M. Keller, G.A. Weidner, and J.J. Cassano, 2018: Alexander Tall Tower! A study of the boundary layer on the Ross Ice Shelf, Antarctica. *J. Appl. Meteor. and Clim.*, **57**, 421-434, doi:10.1175/JAMC-D-17-0017.1.
- Brunke, M.A., J.J. Cassano, N. Dawson, A.K. DuVivier, W.J. Gutowski Jr, J. Hamman, W. Maslowski, B. Nijssen, J.E.J. Reeves Eyre, J.C. Renteria, A. Roberts, and X. Zeng, 2018: Evaluation of atmosphere-land-ocean-sea ice interface processes in the Regional Arctic System Model version

- 1 (RASM1) using local and globally gridded observations, *Geoscientific Model Development*, **11**, 4817-4841, doi:10.5194/gmd-11-4817-2018.
- Gilson, G.F., H. Jiskoot, J.J. Cassano, and T.R. Nielsen, 2018: Radiosonde-derived temperature inversions and their association with fog over 37 melt seasons in East Greenland. *J. Geophys. Res.*, **123**, doi:10.1029/2018JD028886.
- Gilson, G.F., H. Jiskoot, J.J. Cassano, I. Gultepe, and T.D. James, 2018: The thermodynamic structure of Arctic coastal fog occurring during the melt season over East Greenland. *Bound.-Layer Meteor.*, **168**, 443-467, doi:10.1007/s10546-018-0357-3.
- Akperov, M., A. Rinke, I.I. Mokhov, H. Matthes, V.A. Semenov, M. Adakudlu, J. Cassano, J.H. Christensen, M.A. Dembitskaya, K. Dethloff, X. Fettweis, J. Glisan, O. Gutjahr, G. Heinemann, T. Koenigk, N.V. Koldunov, R. Laprise, R. Mottram, O. Nikiéma, J.F. Scinocca, D. Sein, S. Sobolowski, K. Winger, and W. Zhang, 2018: Cyclone activity in the Arctic from an ensemble of regional climate models (Arctic CORDEX). *J. Geophys. Res.*, **123**, 2537-2554, doi:10.1002/2017JD27703.
- Koyama, T., J. Stroeve, J. Cassano, and A. Crawford, 2017: Sea ice loss and Arctic cyclone activity from 1979 to 2014. *J. Clim.*, **30**, 4735-4754, doi:10.1175/JCLI-D-16-0542.1.
- Cassano, E.N.³ and J.J. Cassano, 2017: Atmospheric response to anomalous autumn surface forcing in the Arctic basin. *J. Geophys. Res.*, **122**, 9011-9023, doi:10.1002/2017JD026765.
- Wille, J.D., D.H. Bromwich, J.J. Cassano, M.A. Nigro, M.E. Mateling, and M.A. Lazzara, 2017: Evaluation of the AMPS boundary layer simulations on the Ross Ice Shelf, Antarctica with unmanned aircraft observations. *J. Appl. Meteor. and Clim.*, **56**, 2239-2258, DOI:10.1175/JAMC-D-16-0339.1.
- Cassano, J.J., A. DuVivier², A. Roberts, M. Hughes³, M. Seefeldt³, M. Brunke, A. Craig, B. Fisel, W. Gutowski, J. Hamman, M. Higgins, W. Maslowski, B. Nijssen, R. Osinski, and X. Zeng, 2017: Development of the Regional Arctic System Model (RASM): Near surface atmospheric climate sensitivity. *J. Climate*, **30**, 5729-5753, DOI:10.1175/JCLI-D-15-0775.1.
- DuVivier, A.K., J.J. Cassano, S. Greco, and G.D. Emmitt, 2017: A case study of observed and modeled barrier flow in the Denmark Strait in May 2015, *Mon. Wea. Rev.*, **145**, 2385-2404, DOI:10.1175/MWR-D-16-0386.1.
- Nigro, M.A., J.J. Cassano, J. Wille, D.H. Bromwich, and M.A. Lazzara, 2017: A self-organizing map-based evaluation of the Antarctic Mesoscale Prediction System using observations from a 30-m instrumented tower on the Ross Ice Shelf, Antarctica. *Weather and Forecasting*, **32**, 223-242, DOI:10.1175/WAF-D-16-0084.1.
- Mills², C.M., J.J. Cassano, and E.N. Cassano³, 2016: Mid-latitude atmospheric responses to Arctic sensible heat flux anomalies in Community Climate Model, version 4. *Geophys. Res. Lett.*, **43**, doi:10.1002/2016GL071356.
- Jolly, B., A.J. McDonald, J.H.J. Coggins, P. Zawar-Reza, J. Cassano, M. Lazzara, G. Graeme, G. Plank, O. Petterson, and E. Dale, 2016: A validation of the Antarctic Mesoscale Prediction Systems using self-organizing maps and high-density observations from SNOWWEB. *Mon. Wea. Rev.*, **144**, 3181-3200, DOI:10.1175/MWR-D-15-0447.1.
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- Cassano, E.N.³, J.J. Cassano, M.W. Seefeldt³, J. Glisan, W. Gutowski, 2016: Synoptic conditions during summertime temperature extremes in Alaska. *Int. J. Clim.*, doi:10.1002/joc.4949.
- McDonald, A.J., J.J. Cassano, B. Jolly, S. Parsons, and A. Schuddeboom, 2016: An automated satellite cloud classification scheme using self-organizing maps: Alternative ISCCP weather states. *J. Geophys. Res.* **121**, 13009-13030, doi:10/1002/2016JD025199.
- Glisan, J.M., W.J. Gutowski Jr, J.J. Cassano, E.N. Cassano³, and M.W. Seefeldt³, 2016: Analysis of WRF extreme daily precipitation over Alaska using self-organizing maps. *J. Geophys. Res.*, **121**, 7746-7761, doi:10.1002/2016JD024822.
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- Cassano, J.J., and T.R. Parish, 2000: An analysis of the nonhydrostatic dynamics in numerically simulated Antarctic katabatic flows. *J. Atmos. Sci.*, **57**, 891-898.

Data sets

- Cassano, E., E. Valkonen and J. Cassano, Northern Hemisphere cyclone track data – Arctic Ocean focus 1979-2018, 2071-2100, Arctic Data Center. Urn:uuid:c36ecf5d-ac35-416a-99a4-3ce81c978e02.
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- Jozef, G., de Boer, G., Cassano, J., Calmer, R., Hamilton, J. et al. DataHawk2 Uncrewed Aircraft System data from the Multidisciplinary drifting Observatory for the Study of Arctic Climate (MOSaIC) campaign, B1 level. Arctic Data Center. doi: 10.18739/A2VQ2SB8S (2021).
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- Cassano, J.J., 2017: SUMO unmanned aerial system (UAS) atmospheric data. U.S. Antarctic Program (USAP) Data Center. <http://doi.org/10.15784/601054>.
- Cassano, J.J. and S. Palo, 2015: Ocean-ice-atmosphere interactions in the Terra Nova Bay polynya, Antarctica. U.S. Antarctic Program (USAP) Data Center. <https://doi.org/10.15784/600125>.

Cassano, J.J. and J. Maslanik, 2012: Atmosphere-ocean ice interaction in a coastal polynya. U.S. Antarctic Program (USAP) Data Center. <https://doi.org/10.15784/600075>.

Software

de Boer, G, R. Calmer, G. Jozef, D. Lawrence, A. Doddi, J. Hamilton, J. Cassano and S. Borenstein, 2022: Processing software for University of Colorado UAS datasets from MOSAiC. Zenodo, doi:10.5281/zenodo.6015033.

Technical reports

Cassano, J.J., K. Brunt, N. Dunbar, R. Hale, R. McPherron, M. Nettles, S. Severmann, J. and Powers, 2013: *Antarctic Sciences Section / Antarctic Infrastructure and Logistics Section National Science Foundation Committee of Visitors report*.

Bromwich, D.H., and J.J. Cassano, Eds., 2000: Recommendations to the National Science Foundation from the Antarctic Weather Forecasting Workshop. BPRC Miscellaneous Series Report M-420, 48pp.

Cassano, J.J., J. Wegiel, D. Bacon, B. Kuo, B. Muller, A. Cayette, S. Pendlebury, and P.F. Coppola, 2000: Numerical forecast models. *Recommendations to the National Science Foundation from the Antarctic Weather Forecasting Workshop*, D.H. Bromwich and J.J. Cassano, Eds., Byrd Polar Research Center, 25-32.

Bromwich, D.H. and J.J. Cassano, 2000: RIME: A field program for advancing Antarctic weather prediction. *Recommendations to the National Science Foundation from the Antarctic Weather Forecasting Workshop*, D.H. Bromwich and J.J. Cassano, Eds., Byrd Polar Research Center, 37-40.

Bromwich, D.H., and J.J. Cassano, 2001: Antarctic weather forecasting workshop. *Bull. Amer. Meteor. Soc.*, **82**, 1409-1413.

Books

Cassano, J.J., 2013: Climate of Extremes, in *Antarctica: Global Science from a Frozen Continent* (ed. D.W.H. Walton), Cambridge University Press, Cambridge, 102-136.

Lynch, A.H., and J.J. Cassano, 2006: *Applied Atmospheric Dynamics*. J. Wiley and Sons, West Sussex, 280pp.

M. Shaw and J.J. Cassano, 2006: *Applied Atmospheric Dynamics: Review Question Solutions*. J. Wiley and Sons, West Sussex, available as electronic document from publisher.

Cassano, J.J., and R.B. Stull, 1995: *An Instructors Supplement to Meteorology Today for Scientists and Engineers*. West Publishing Co., 139pp.

Lab manuals

Cassano, J.J. (ed); 1998: *ATSC 2000 Introduction to Meteorology Lab Manual*, University of Wyoming

Field Work

January – April 2020: Lead DataHawk2 unmanned aerial system flights during MOSAiC field campaign, central Arctic Ocean

April 2019: Unmanned aerial system polar test flights, Longyearbyen, Norway

February 2018: Atmospheric field class (UNIS AGF 350), University Centre in Svalbard (UNIS), Longyearbyen, Norway

January 2017: Participate in unmanned aerial vehicle field campaign to study the atmospheric boundary layer over Wright Valley, Transantarctic Mountains, Antarctica

August-September 2016: Lead unmanned aerial vehicle field campaign to study the atmospheric boundary layer over the Ross Ice Shelf, Antarctica.

February 2016: Atmospheric field class (UNIS AGF 350), University Centre in Svalbard (UNIS), Longyearbyen, Norway

May 2015: Participate in Polar Winds: Airborne Doppler Wind Lidar, Iceland / Greenland

August 2014: Participate in Multi-sUAS Evaluation of Techniques for Measurement of Atmospheric Properties (MET MAP), Pawnee National Grassland, Colorado.

March - November 2014: Participate in field campaign to observe wind turbine wakes using unmanned aerial systems at the National Wind Technology Center, Colorado.

January 2014: Lead unmanned aerial vehicle field campaign to study the atmospheric boundary layer over the Ross Ice Shelf, Antarctica
August - September 2012, August - September 2009: Lead unmanned aerial vehicle field campaign to study Terra Nova Bay polynya, Antarctica
January-February 2012, January 2009, January-February 2004, January 2000, January 1998, December 1994 - January 1995, January 1994: Install and repair automatic weather stations in Antarctica
December 2007 - January 2008, January 2001: Work with U.S. Antarctic Program weather forecasters at McMurdo Station, Antarctica

Current Research Grants

High-Latitude Application and Testing of Earth System Models – Phase III: HiLAT-RASM, Source of support: Los Alamos National Laboratory / DOE; Total award amount \$449,997 (University of Colorado); Total award period covered: January 2023 – December 2025; PI: J. Cassano
NASA Center for Advanced Measurements in Extreme Environments (CAMEE), Source of support: NASA; Total award amount: \$239,384 (University of Colorado); Total award period covered: August 2019 - September 2023; PI: Hongjie Xie, co-PIs: Steve Ackley, Alberto Mestas, Christopher Combs, Kiran Bhaganagar, Marilyn Raphael, John Cassano, Tomeka Cross Wilson
Analysis to Evaluate and Improve Model Performance in the Central Arctic: Unique Perspectives from Autonomous Platforms During MOSAiC. Source of support: NSF; Total award amount: \$1,673,672 (University of Colorado); Total award period covered: July 2018 - June 2023; PI: Gijs de Boer, co-PI John Cassano, Brian Agrow, Dale Lawrence
Collaborative Research: Observing the Atmospheric Boundary Layer over the West Antarctic Ice Sheet. Source of support: NSF; Total award amount \$650,016 (\$403,796 - University of Colorado); Total award period covered: June 2018 - May 2023; Principal investigator: John J. Cassano, co-PI: Matthew Lazzara

Previous Research Grants

HiLAT-RASM: A Renewal Proposal for the High-Latitude Application and Testing of Earth System Models (HiLAT) Science Focus Area, in Collaboration with the Regional Arctic System Model. Los Alamos National Laboratory / Department of Energy; Total award amount: \$605,442 (University of Colorado); Total award period covered: October 2018 - December 2022; PI: John J. Cassano
RAPID: An improved understanding of mesoscale wind and precipitation variability in the Ross Island region based on radar observations, Source of support: NSF; Total award amount: \$125,070 (University of Colorado); Total award period covered: October 2019 - September 2022; PI: John J. Cassano co-PI: David Kingsmill and Mark Seefeldt
Collaborative Research: Understanding the Role of Arctic Cyclones - A System Approach. Source of support: NSF; Total award amount: \$1,512,982, \$666,625 to University of Colorado; Total award period covered: August 2016 - July 2022; Principal investigator: John J. Cassano, co-PI: Elizabeth N. Cassano, Mark C. Serreze, Larry DiGirolamo, Wieslaw Maslowski, Andrew F. Roberts, John E. Walsh
Collaborative Research: Antarctic Automatic Weather Station Program 2016-2019. Source of support: NSF; Total award amount: \$99,793; Total award period covered: September 2016 - August 2020; Principal investigator: John J. Cassano, co-PI: Melissa A. Nigro
Collaborative Research: Advancing Arctic Climate Projection Capability at Seasonal to Decadal Scales. Source of support: DOE; Total award amount: \$1,106,469 (University of Colorado); Total award period covered: January 2016 - December 2019; Principal Investigator: John J. Cassano, co-PI: Bart Nijssen
Collaborative Research: Polynyas, Ice Production and Seasonal Evolution in the Ross Sea (PIPERS). Source of support: NSF; Total award amount: \$422,499 (University of Colorado); Total award period covered: March 2015 - August 2019; Principal Investigator: Sharon Stammerjohn; Co-Principal Investigator: John J. Cassano
Characteristics, Variability and Hydrologic Impacts of the Summer Arctic Frontal Zone and Projected Changes Through the 21st Century. Source of support: NSF; Total award amount: \$475,771 (University of Colorado); Total award period covered: April 2014 - March 2019; Principal Investigator: Mark C. Serreze; Co-Principal Investigator: Elizabeth N. Cassano, John J. Cassano

An Integrated Observational / Modeling Assessment of the Effects of Recent and Future Arctic Change on Weather Systems in the United States. Source of support: NASA; Total award amount: \$988,466 (University of Colorado); Total award period covered: December 2013 - April 2019; Principal Investigator: John J. Cassano; Co-Principal Investigators: M. Serreze, J. Stroeve, E. Cassano, J.A. Francis, and D.W.J. Thompson

Collaborative Research: Understanding Arctic Marine Biogeochemical Response to Climate Change for Seasonal to Decadal Prediction Using Regional and Global Climate System Models. Source of support: NSF; Total award amount: \$154,186 (University of Colorado); Total award period covered: October 2014 - September 2018; Principal Investigator: John J. Cassano

Collaborative Research: Antarctic Automatic Weather Station Program 2013-2017. Source of support: NSF; Total award amount: \$349,598 (University of Colorado); Total award period covered: April 2013 - March 2017; Principal Investigator: John J. Cassano

Polar Winds: Airborne Doppler Wind Lidar Investigations. Source of support: Simpson Weather Associates; Total award amount: \$69,986 (University of Colorado); Total award period: January 2015 - August 2016; Principal Investigator: John J. Cassano

Collaborative Research: Improving Decadal Prediction of Arctic Climate Variability and Change Using a Regional Arctic System Model (RASM). Source of support: DOE; Total award amount: \$657,746 (University of Colorado); Total award period covered: May 2011 - May 2016; Principal Investigator: Wieslaw Maslowski; Co-Principal Investigators: John J. Cassano, Matthew Higgins, Andrew Roberts, William Gutowski, Dennis Lettenmaier, Xubin Zeng, Slawek Tulaczyk, William H. Robertson, William Lipscomb.

Polar Winds: Airborne Doppler Wind Lidar Investigations. Source of support: Simpson Weather Associates, Inc.; Total award amount: \$22,062 (University of Colorado); Total award period covered: November 2013 - January 2015; Principal Investigator: John J. Cassano

Collaborative Research: Towards Advanced Understanding and Improved Decadal/Centennial Prediction of Arctic Sea Ice State and Climate. Source of support: NSF; Total award amount: \$182,192; Total award period covered: Oct 2011 - Sept 2015; Principal Investigator: John J. Cassano; Co-Principal Investigator: Matthew Higgins.

Collaborative Research: Arctic Extreme Temperature and Precipitation - Detection and Projection of Their Climatic Change and Physical Causes. Source of support: NSF; Total award amount: \$372,996; Total award period covered: Sept 2010 - Sept 2015; Principal investigator: John J. Cassano; Co-investigator: Elizabeth N. Cassano

Collaborative Research: Analysis of McCall Glacier Ice Core and Related Modern Process Studies. Source of support: NSF; Total award amount: \$284,878; Total award period covered: Sept 2010 - August 2015; Principal investigator: John J. Cassano; Co-Investigator: Elizabeth N. Cassano

Collaborative Research: Ocean-Ice-Atmosphere Interactions in the Terra Nova Bay Polynya, Antarctica. Source of support: NSF; Total award amount: \$1,053,986; Total award period covered: Aug 2011 - July 2015; Principal investigator: John J. Cassano, Co-investigators: Shelley L. Knuth and Scott Palo

Observations of wind turbine wakes using unmanned aircraft systems. Source of support: CIRES; Total award amount: \$24,768; Total award period covered: June 2013 - November 2014; Principal investigator: John J. Cassano; Co-Principal Investigators: J. Lundquist, B. Argrow, E. Frew, and K. Friedrich

Collaborative Research: Antarctic Automatic Weather Station Program. Source of support: NSF; Total award amount: \$255,609; Total award period covered: Jan 2010 - Aug 2014; Principal investigator: John J. Cassano

Collaborative Research: Antarctic Automatic Weather Station Program (supplemental funding). Source of support: NSF; Total award amount: \$29,979; Total award period covered: Jan 2010 - August 2014; Principal investigator: John J. Cassano

Collaborative Research: Towards Advanced Understanding and Predictive Capability of Climate Change in the Arctic Using a High-Resolution Regional Arctic Climate System Model. Source of support: Department of Energy; Total award amount: \$690,996 (Univ. of Colorado); Total award period covered: September 2007 - August 2012; Principal investigator: Wieslaw Maslowski; Co-Principal Investigators: John J. Cassano, William J. Gutowski, and Dennis P. Lettenmaier

Hydrologic Response to a Shrinking Arctic Sea Ice Cover. Source of support: National Science Foundation; Total award amount: \$594,934; Total award period covered: Sept 2008 - August 2012; Principal

investigator: Mark C. Serreze; Co-Principal Investigators: Elizabeth N. Cassano, John J. Cassano, and Julienne Stroeve

Collaborative Research: Oceanic Response to Mesoscale Atmospheric Circulations in Terra Nova Bay. Source of support: National Science Foundation; Total award amount: \$1,092,667; Total award period covered: August 2008 - July 2012; Principal Investigator: John J. Cassano; Co-Principal Investigator: James A. Maslanik

Synoptic Climatology of Lake El'gygytgyn. Source of support: University of Alaska - Fairbanks; Total award amount: \$30,008; Total award period covered: Dec 2009 - May 2011; Principal investigator: Elizabeth Cassano; Co-investigator: John J. Cassano

A Comprehensive Modeling Approach Towards Understanding and Prediction of the Alaskan Coastal System Response to Changes in an Ice-diminished Arctic. Source of support: Naval Postgraduate School (National Oceanographic Partnership Program); Total award amount: \$378,538; Total award period covered: September 2007 - August 2011; Principal Investigator: John J. Cassano

Collaborative Research: Antarctic Automatic Weather Station Program. Source of support: NSF; Total award amount: \$194,892; Total award period covered: August 2007 - July 2011; Principal investigator: John J. Cassano

Support and Enhancement of the Antarctic Mesoscale Prediction System (AMPS) 2008-2010. Source of support: NSF; Total award amount: \$834,434 (University of Colorado portion of proposal budget: \$57,097); Total award period covered: October 2008 - September 2010; Principal investigator: Jordan G. Powers, Co-investigators: David H. Bromwich and John J. Cassano

Collaborative Research: Understanding Change in the Climate and Hydrology of the Arctic Land Region: Synthesizing the Results of the ARCSS Fresh Water Initiative Projects. Source of support: NSF; Total award amount: \$300,241; Total award period covered: September 2006 - August 2009; Principal investigator: John J. Cassano

Meteorological Training - Physical and Dynamic Meteorology. Source of support: Vaisala; Total award amount: \$30,218; Total award period covered: January 2009 - April 2009; Principal investigator: John J. Cassano

Synoptic Climatology of the Arctic National Park Network. Source of support: University of Alaska - Fairbanks; Total award amount: \$26,676; Total award period covered: June 2007 - October 2008; Principal investigator: John J. Cassano

Collaborative Research: Detection and Attribution of Changes in the Hydrologic Regimes of the Mackenzie, the Kuparuk and the Lena River Basins: Source of support: NSF; Total award amount: \$394,347; Total award period covered: January 2003 - December 2008; Principal investigator: John J. Cassano, Co-investigator: Amanda H. Lynch

Support and Enhancements of the Antarctic Mesoscale Prediction System (AMPS), Source of support: NSF; Total award amount: \$816,428 (University of Colorado portion of budget: \$43,330); Total award period covered: October 2006 - September 2008; Principal investigator: Jordan G. Powers, Co-investigators: David H. Bromwich and John J. Cassano

Developing an Understanding and Predictive Capability of the Interconnections Among Arctic Terrestrial, Atmospheric, and Marine Systems. Source of support: NSF; Total award amount: \$299,990 (University of Colorado portion of proposal budget); Total award period covered: January 2005 - September 2008; Principal investigator: Walter C. Oechel, Co-investigators: John J. Cassano, Larry D. Hinzman, John S. Kimball, and Wieslaw Maslowski

Arctic Regional Climate Model Intercomparison Project: Evaluation and Interpretation of Cloud and Radiation Fields using Data Project from FIRE ACE: Source of support: Georgia Institute of Technology; Total award amount: \$88,737; Total award period covered: December 2003 - November 2006; Principal investigator: Amanda H. Lynch, Co-investigator: John J. Cassano

Enhancement and Operation of the Antarctic Mesoscale Prediction System (AMPS), Source of support: NSF; Total award amount: \$18,762 (University of Colorado portion of proposal budget); Total award period covered: October 2004 - September 2006; Principal investigator: Jordan G. Powers, Co-investigators: David H. Bromwich, John J. Cassano, and Y.-H. Kuo

Collaborative Research: pre-RIME Studies of Transport Processes in the Ross Sea Sector: Source of support: NSF; Total award amount: \$65,188; Total award period covered: August 2003 - July 2005; Principal investigator: John J. Cassano

Extension of the Antarctic Mesoscale Prediction System (AMPS): Source of support: NCAR; Total award amount: \$39,802; Total award period covered: October 2002 - September 2004; Principal investigator: John J. Cassano

Greenland: Reanalysis of the Energy Budget of the Ice Sheet (GREBIS): Source of support: NASA; Total award amount: \$276,243; Total award period covered: September 2002 - August 2005; Principal investigator: John J. Cassano, Co-investigators: Amanda H. Lynch and Konrad Steffen

Teaching

Courses taught

ATOC 1050 - Weather and the Atmosphere, Department of Atmospheric and Oceanic Sciences, University of Colorado (Spring 2010, Fall 2005, Spring 2005, Fall 2004, Spring 2002)

ATOC 3050 - Principles of Weather, Department of Atmospheric and Oceanic Sciences, University of Colorado (Spring 2018, Spring 2016, Spring 2015)

ATOC 4840 (ATOC 4500) - Field Measurements and Observations, Department of Atmospheric and Oceanic Sciences, University of Colorado (Spring 2019, Spring 2022)

ATOC 4720 - Introduction to Atmospheric Physics and Dynamics, Department of Atmospheric and Oceanic Sciences, University of Colorado (Spring 2023, Spring 2021, Fall 2017, Fall 2015, Fall 2013, Spring 2007, Spring 2006)

ATOC 4750/5750 - Desert Meteorology, Department of Atmospheric and Oceanic Sciences, University of Colorado (Fall 2021, Fall 2019, Fall 2011, Spring 2008)

ATOC 5050 - Introduction to Atmospheric Physics and Dynamics, Department of Atmospheric and Oceanic Sciences, University of Colorado (Fall 2022, Fall 2020, Fall 2018, Fall 2014, Fall 2013, Fall 2010, Fall 2008, Fall 2007, Fall 2006)

ATOC 5060 - Atmospheric Dynamics, Department of Atmospheric and Oceanic Sciences, University of Colorado (Spring 2011)

ATOC 6020 - Seminar: Weather Forecasting, Department of Atmospheric and Oceanic Sciences, University of Colorado (Fall 2010, Spring 2010, Fall 2008, Fall 2007, Spring 2007, Fall 2006, Spring 2006, Fall 2005, Spring 2005, Fall 2004)

ATOC 6700 - Weather Forecasting and Discussion, Department of Atmospheric and Oceanic Sciences, University of Colorado (Spring 2016, Fall 2014, Fall 2013)

ATOC 7500 - Introduction to Atmospheric Physics and Dynamics, Department of Atmospheric and Oceanic Sciences, Continuing Education, University of Colorado (Spring 2009)

UNIS AGF 350 - Arctic Atmospheric Boundary Layer and Local Processes, (Co-lecturer), University Centre in Svalbard (Spring 2018, Spring 2016)

Atmospheric Science 820 - Mesoscale Atmospheric Modeling, (Co-lecturer), Atmospheric Sciences Program, Ohio State University (Spring 2000)

Geography 820 - Climate System Modeling, (Co-lecture) Atmospheric Sciences Program, Ohio State University (Spring 1999)

ATSC 2000 lab - Introduction to Meteorology, (Teaching Assistant), Department of Atmospheric Science, University of Wyoming (Fall 1998, Spring 1998, Fall 1997, Spring 1997, Fall 1996)

New courses developed

ATOC 3050 - Principles of Weather, Department of Atmospheric and Oceanic Sciences

ATOC 4840 - Field Measurements and Observations, Department of Atmospheric and Oceanic Sciences

ATOC 6700 / ATOC 6020 - Weather Forecasting and Discussion, Department of Atmospheric and Oceanic Sciences

Graduate Advisees

Mckenzie Dice (Ph.D. Student)

Alice DuVivier (Ph.D. - Spring 2015)

Joel Finnis (Ph.D. - Spring 2008)

Matthew Higgins (Ph.D. - Summer 2010)

Gina Jozef (Ph.D. Student)

Shelley Knuth (Ph.D. - Spring 2014)

Tomoko Koyama (Ph.D. - Spring 2018)

Scott Landoldt (Ph.D. - Fall 2019)
Melissa Nigro (Ph.D. - Fall 2012)
Cody Phillips (M.S. - Fall 2014)
David Porter (Ph.D. - Fall 2011)
Kelly Schick (M.S. - Spring 2018)
Keah Schuenemann (Ph.D. - Fall 2008)
Mark Seefeldt (Ph.D. - Fall 2007)
Michael Shaw (M.S. - Fall 2005)
Elina Valkonen (Ph.D. – Spring 2022)

Post-doctoral Advisees

Radiance Calmer
Alice DuVivier
Ulrike Egerer
Joel Finnis
Matthew Higgins
Mimi Hughes
Catrin Mills
Melissa Nigro
David Porter
Mark Seefeldt

Other Advisees

Luna M. Rodriguez-Manzanet (University of Colorado Summer Multicultural Access to Research Training (SMART) and UCAR Significant Opportunities in Atmospheric Research (SOARS))
Christopher Takeuchi (Professional Research Assistant)
Michael Shaw (Professional Research Assistant)
Mimi Hughes (Research Scientist 2)
Mark Seefeldt (Research Scientist 2)
Katherine Leonard (Research Scientist 1)

Thesis and Post-doctoral Advisors

Amanda H. Lynch, Post-doctoral advisor, University of Colorado
David H. Bromwich, Post-doctoral advisor, Ohio State University
Thomas R. Parish, Ph.D. advisor, University of Wyoming
Charles R. Stearns, M.S. advisor, University of Wisconsin