

# CURRICULUM VITAE: AMANDA H. LYNCH

## SUMMARY OF EXPERIENCE AND QUALIFICATIONS

### Current positions

- 2022 - Chair, Research Board, World Meteorological Organization  
2011 - Sloan Lindemann and George Lindemann Jr Distinguished Professor, Department of Earth, Environmental and Planetary Sciences, Brown University  
2019 - Visiting Professor, Nordland Research Institute, Bodø, Norway

### Education

1986	B.Sc. (First Class Honours)	Monash University	Applied Mathematics
1993	Ph.D.	University of Melbourne	Atmospheric Sciences
2012	M.A. ad eundem	Brown University	Arts

### Professional Experience

- 2014-2020 Founding Director, Institute at Brown for Environment and Society, Brown University  
2012-2014 Director, Environmental Change Initiative, Brown University  
2006-2009 Head, Monash Climate, Monash Sustainability Institute  
2004-2011 Professor, School of Geography and Environmental Sciences, Monash University  
2001-2003 Assoc. Prof., Program in Atmosphere and Ocean Sciences, University of Colorado  
1997-2003 Fellow, Cooperative Institute for Research in Environmental Sciences  
1997-2000 Asst. Professor, Program in Atmosphere and Ocean Sciences, University of Colorado  
1995-1996 Lecturer, Polar Atmosphere Group, University of Tasmania, Australia  
1995-2000 Adjunct Asst. Professor, Geophysical Institute, University of Alaska Fairbanks  
1994-1995 Asst. Professor of Atmospheric Sciences, Geophysical Institute, University of Alaska  
1993, 1994 Visiting Scientist, National Center for Atmospheric Research  
1992-1993 Post-doctoral Fellow, Geophysical Institute, University of Alaska Fairbanks  
1987-1988 Science 1 Meteorologist, Bureau of Meteorology Research Centre, Australia

### Honors

- 2022: Myres S. McDougal Prize  
2021: Fellow, The Explorers Club  
2018: Presidential Faculty Research Award, Brown University  
2017: Fellow of the Norwegian Scientific Academy for Polar Research  
2016: Fellow of the World Academy of Art and Science  
2015: Fellow of the American Meteorological Society  
2013: Most important interdisciplinary publication of 2012, Swiss Academies of Sciences  
2008: Fellow of the Australian Academy of Technological Sciences and Engineering  
2008: Priestly Medal, Australian Meteorological and Oceanographic Society  
2003: Federation Fellowship, Australian Research Council

### Selected Consultancies

- 2020-2021 World Bank Food System Resilience Programme, West Africa  
2018-2019 UNFCCC Adaptation Programme  
2005-2011 Australian Community Climate and Earth-System Simulator Programme  
2010 Commissioner for Environmental Sustainability, Victoria, Australia  
2009-2011 Office of the Chief Scientist, Australian Government  
2009-2011 Institute for Water Economics and Environmental Policy, Australia National Univ.

2008 Garnaut Climate Change Review, Australian Government  
1994-1996 Los Alamos National Laboratory

**Selected invited talks and keynote presentations:**

- 2022: Invited: McDougal Prize Lecture, Duke University, North Carolina, USA.
- 2020: Invited: Building partnerships between regional and national services, West Africa Food System Resilience Program Workshop, World Bank Group.
- 2019: Invited: Coexistence in the Anthropocene. Northern Rockies Conservation Cooperative, Jackson Hole, WY.
- 2019: Invited: On Thin Ice in Uummanaq. Google SciFoo 2019, X campus, Alphabet Inc., Palo Alto, CA.
- 2018: Invited: Science for Understanding, Science for Impact, UNFCCC Bonn Climate Change Conference (SBSTA 48, SBI 48, APA 1-5), Bonn.
- 2017: Invited: Seamless Prediction for Climate Adaptation, World Meteorological Organization Commission for Atmospheric Sciences Science Summit, Geneva.
- 2016: Invited: Navigating the New Arctic, National Science Foundation Advisory Committee of Environmental Research and Education, Washington DC.
- 2015: Invited: Addressing the Challenges of Diverse Knowledge Systems through Landscape Analysis, 52<sup>nd</sup> Annual Meeting of the Association of Tropical Biology and Conservation, Honolulu.
- 2014: Invited: Weather extremes, Climate Change and Adaptive Governance. Transatlantic Science Week, Toronto.
- 2014: Invited: Climate Change Adaptation Policy Innovation: Subsidiarity, Diversity and Redundancy. Workshop on Climate Science Needed to Support Robust Adaptation Decisions, Georgia Institute of Technology
- 2013: Invited: Antarctic Ice Sheet Mass Balance Constraints. Department of Geosciences, University of Massachusetts Amherst.
- 2012: Invited: Climate Sensitive Water Policy: Diagnosing the Decision Process Through Drought and Flood in the Murray-Darling Basin, Australia. Georgetown University.
- 2012: Invited: Synoptic variability and ice sheet mass balance in Antarctica. US Army Cold Regions Research and Engineering Laboratory.
- 2012: Invited: Interdisciplinarity in Climate Adaptation. School of Forestry and Environmental Studies, Yale University
- 2011: Invited: The Science Policy Interface in the Climate Change Regime. Centre for Water Economics, Environment and Policy, Australian National University.
- 2010: Keynote: Climate surprises in the Lake Eyre Basin. Lake Eyre Basin Commission Annual Meeting.
- 2009: Invited: Emissions Reduction Targets and the Great Barrier Reef. Parliament House, Canberra.
- 2009: Keynote: Bounded Rationality in Responding to Climate Change. National Climate Change Adaptation Research Facility Annual Conference.
- 2009: Keynote: Democracy and climate change. International Scientific Conference on Climate Change. Copenhagen.
- 2008: Invited: Vulnerability of socio-ecological systems to climate change. Australian Academy of Science: Dangerous climate change: Is it inevitable?
- 2007: Keynote: Climate Change Adaptation: Policy and Practice. Greenhouse '07.
- 2006: Keynote: The contribution of science to community based climate adaptation initiatives. 13<sup>th</sup> Annual Conference of the Australian Meteorological and Oceanographic Society.

- 2006: Keynote: Earth System Science: Research Challenges in Advanced Computing. Australian Partnership for Advanced Computing All Hands Meeting.
- 2006: Invited: Context and Climate Change. Annual Institute of the Society for Policy Sciences, Yale University.
- 2004: Invited: Impact of extreme events on the coastal arctic environment. Bjerknes Symposium on High Latitude Climate Change, Norway.
- 2004: Invited: Physical modelling of regional climate and model intercomparisons. 16th Bureau of Meteorology Research Centre Modeling Workshop.
- 2002: Invited: Analysis of multi-dimensional and multi-variate data sets. World Climate Research Programme Workshop on Feedbacks, Atlanta, USA.
- 1999: Keynote: Regional Climate System Modelling. Conference on the Detection and Modeling of Regional Climate Change, The Abdus Salam International Centre For Theoretical Physics, Italy.
- 1999: Keynote: Arctic meteorology and climatology: current understanding and future directions. International Union of Geodesy and Geophysics Annual Meeting, Birmingham, UK.
- 1999: Invited: Modeling of high latitude climate: Land-atmosphere and sea ice-atmosphere interactions. Centre for Climate and Global Change Research Colloquium Fall Series, Montreal.
- 1998: Wadati Conference Speaker: Terrestrial Impacts on High Latitude Climate. American Association for the Advancement of Science 49th Arctic Science Conference, Fairbanks, AK, USA.
- 1996: Invited: Arctic System Science: Synthesis, Integration and Modelling. Arctic System Science All-Hands Meeting, Snowbird, UT, USA.
- 1996: Invited: The Atmospheric Response to Surface Fluxes in an Arctic Regional Climate System Model. American Geophysical Union Fall Meeting, San Francisco, USA.
- 1995: Invited: The Challenge of Regional Climate Modelling in the Arctic. Wadati Conference on Global Change and the Polar Regions, Tsukuba, Japan.
- 1993: Invited: A Regional Model for Studies of the Arctic Atmosphere-Ocean-Land System. American Geophysical Union Fall Meeting, San Francisco, USA.

## RESEARCH

### Books

1. Lynch, A.H. and S. Veland, 2018: Urgency in the Anthropocene. (The MIT Press). ISBN: 9780262038706. 256 pp.
2. Brunner, R.D. and A.H. Lynch, 2010: Adaptive Governance and Climate Change. (AMS Press and University of Chicago Press) ISBN: 9781878220974, 424 pp.
3. Lynch, A.H., and J.J. Cassano, 2006: Applied Atmospheric Dynamics, J. Wiley and Sons, ISBN: 0-470-86173-8, 290pp.

### Book Chapters

1. Veland, S. and Lynch, A.H. (in review) Axes of Remoteness: The Global Sacrifice Zone of Arctic Petroleum, Chapter 3 in Sacrifice Zones: A Critical Introduction, Brownlow, A. and Veland, S. (Eds) University of Chicago Press.
2. Brunner, R.D. and A.H. Lynch, 2017: Adaptive Governance, Oxford Research Encyclopedia, Oxford University Press, DOI: 10.1093/acrefore/9780190228620.013.601
3. Brunner, R.D. and A.H. Lynch, 2010: Adaptive governance: Proposals for climate change science, policy and decision-making. In: Adaptation and Mitigation Strategies for Climate Change. ed. S. Akimasa, F. Kensuke, A. Hiramatsu (Springer Berlin) ISBN: 978-4-431-99797-9, 356 pp.

4. Dethloff, K. A. Rinke, A. Lynch, W. Dorn, S. Saha, D. Handorf, 2008: Arctic Regional Climate Models. In: Arctic Climate Change - The ACSYS Decade and Beyond. ed. P. Lemke (Springer Berlin).
5. Lynch, A.H., 2008: The Next 100 Years: Atmospheric circulation and precipitation. In: Antarctic Climate Change and the Environment. (eds J. Turner, P. Convey, G. di Prisco, P. Mayewski, D. Hodgson, E. Fahrbach and B. Bindschadler).
6. Christensen, J.H., Hewitson, B., Busuioc A., Chen, A., Gao, X., Held, I., Jones, R., Kolli, R.K., Kwon, W.-T., Laprise, R., Maga-a Rueda, V., Mearns, L., Menendez, C.G., Raisanen, J., Rinke A., Sarr, A., Whetton, P., Arritt, R., Benestad, R., Beniston, M., Bromwich D., Caya, D., Comiso, J., de El'a, R., Dethloff, K., Emor, S., Feddema, J., Gerdes, R., Gonzalez-Rouco, J.F., Gutowski, W., Hanssen-Bauer, I., Jones, C., Katz, R., Kitoh, A., Knutti, R., Leung, R., Lowe, J., Lynch, A.H., Matulla, C., McInnes, K., Mescherskaya, A.V., Mullan, A.B., New, M., Nokhandan, M.H., Pal, J.S., Plummer, D., Rummukainen, M., Schor, C., Somot, S., Stone, D.A., Suppiah, R., Tadross, M., Tebaldi, C., Tennant, W., Widmann, M., Wilby, R., Wyman, B.L., 2007: Regional Climate Projections. Chapter 11, in Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 996 pp.
7. Giorgi, F., Hewitson, B., Christensen, J., Hulme, M., Von Storch, H., Whetton, P., Jones, R., Mearns, L., Fu, C., Arritt, R., Bates, B., Benestad, R., Boer, G., Buishand, A., Castro, M., Chen, D., Cramer, W., Crane, R., Crossley, J. F., Dehn, M., Dethloff, K., Dippner, J., Emori, S., Francisco, R., Fyfe, J., Gerstengarbe, F.W., Gutowski, W., Gyalistras, D., Hanssen-Bauer, I., Hantel, M., Hassell, D.C., Heimann, D., Jack, C., Jacobeit, J., Kato, H., Katz, R., Kauker, F., Knutson, T., Lal, M., Landsea, C., Laprise, R., Leung, L.R., Lynch, A.H., May, W., McGregor, J.L., Miller, N.L., Murphy, J., Ribalaygua, J., Rinke, A., Rummukainen, M., Semazzi, F., Walsh, K., Werner, P., Widmann, M., Wilby, R., Wild, M., Xue, Y.: 2001: Regional Climate Information – Evaluation and Projections. Chapter 10, in Climate Change 2001: The Scientific Basis. Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change [Houghton, J.T., Y. Ding, D.J. Griggs, M. Noguer, P.J. van der Linden, X. Dai, K. Maskell, and C.A. Johnson (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 881pp.

### Peer Reviewed Publications

1. Li, X. and A.H. Lynch (in review): Sea Ice Variability, Arctic Maritime Access, Model Uncertainty, Scenario Analysis, Navigation Risk and Cost, Geopolitics. Climatic Change.
2. Goldstein, M.A., X. Li, A.H. Lynch, S.R. Stephenson, S. Veland and D.A. Bailey (in review): Arctic marine access variability costs on the Northern Sea Route. Nature.
3. Lynch, A.H., 2022: High stakes and sacrifice in the Arctic. *Frontiers in Ecology and the Environment*. <https://doi.org/10.1002/fee.2557>
4. Goldstein, M.A., A.H. Lynch, X. Li and C.H. Norchi, 2022: Sanctions or sea ice: Costs of closing the Northern Sea Route, *Finance Research Letters*, <https://doi.org/10.1016/j.frl.2022.103257>.
5. Lynch, A.H., C.H. Norchi and X. Li, 2022: The interaction of ice and law in Arctic marine accessibility. *Proceedings of the National Academy of Sciences*. 119 (26) e2202720119 <https://doi.org/10.1073/pnas.2202720119>
6. Goldstein, M.A., Lynch, A.H. and Norchi, C.H., 2022. Conflict's impact raises costs for Arctic shipping and the climate. *Nature*, 606 (7913), pp.250-250.
7. Norchi, C.H. and A.H. Lynch, 2022: Arctic Navigation and Climate Change: Projections from Science for the Law of the Sea. *International Law Studies*, 99, 491-516.

8. Brunet, G.,...A.H. Lynch et al. 2022: Advancing Weather and Climate Forecasting for our Changing World. *Bulletin of the American Meteorological Society*, <http://doi.org/10.1175/BAMS-D-21-0262.1>.
9. Goldstein, M.A., A.H. Lynch, R. Yan, S. Veland, W. Talleri, 2022: Economic viability of multi-modal transportation infrastructure in a changing Arctic. *Weather, Climate and Society*, <https://doi.org/10.1175/WCAS-D-21-0151.1>.
10. Chen, Z. and A.H. Lynch, 2022: Arctic maritime cyclone distribution and trends in the ERA5 reanalysis. *J. App. Climatol. Meteorol.* DOI: <https://doi.org/10.1175/JAMC-D-21-0016.1>
11. Veland, S., I. Gram-Hanssen, D. Maggs, A.H. Lynch, 2022: Can the SDGs harness the means as well as the manner of transformation? *Sustainability Science*, 17 (2), 637-651.
12. Terblanche, D.E., A.H. Lynch, Z. Chen and S. Sinclair, 2021: ERA5 derived precipitation: Insights from historical rainfall networks in southern Africa. *J. App. Climatol. Meteorol.* <https://doi.org/10.1175/JAMC-D-21-0096.1>
13. Li, X., S.R. Stephenson, A.H. Lynch, M. Goldstein, D.A. Bailey, S. Veland 2021: Arctic Shipping Guidance from the CMIP6 Ensemble on Operational and Infrastructural Timescales. *Climatic Change*, 167(1), 1-19.
14. Li, X., A.H. Lynch, D.A. Bailey and S.R. Stephenson, 2021: The Impact of Black Carbon Emissions from Projected Arctic Shipping on Regional Ice Transport. *Climate Dynamics*, 1-14.
15. Steiro, V., J. C. Ryan, S. W. Cooley, L. C. Smith, B. Dale, A.H. Lynch, S. Veland, 2021: Changes in sea ice travel conditions in Uummannaq Fjord, Greenland (1985-2019) assessed through remote sensing and transportation modeling. *Physical Geography*, DOI: 10.1080/1088937X.2021.1938271.
16. Veland, S., Wagner, P., Bailey, D., Everett, A., Goldstein, M., Hermann, R., Hjort-Larsen, T., Hovelsrud, G., Hughes, N., Kjøl, A., Li, X., Lynch, A., Müller, M., Olsen, J., C. Palmerme, Pedersen, J.L., Rinaldo, Ø., Stephenson, S., Storelvmo, T. (2021). Knowledge needs in sea ice forecasting for navigation in Svalbard and the High Arctic. Svalbard Strategic Grant, Svalbard Science Forum. NF-rapport 4/2021
17. Cooley, S. W., Ryan, J. C., Smith, L. C., Horvat, C., Pearson, B. Dale, B., Lynch, A.H., 2020: Coldest Arctic communities face greatest reductions in shorefast sea ice. *Nature Climate Change* 10, 533–538, DOI: 10.1038/s41558-020-0757-5.
18. Paolo Ruti; Oksana Tarasova; Julia H. Keller; Gregory Carmichael; Øystein Hov; Sarah Jones; Deon Terblanche; Cheryl Anderson; Ana Barros; Peter Bauer; Véronique Bouchet; Guy Brasseur; Gilbert Brunet; Phil DeCola; Victor Dike; Mariane Diop Kane; Christopher Gan; Kevin Gurney; Steven Hamburg; Wilco Hazeleger; Michel Jean; David Johnston; Alastair Lewis; Peter Li; Xudong Liang; Valerio Lucarini; Amanda Lynch; Elena Manaenkova; Jae-Cheol Nam; Satoru Ohtake; Nadia Pinardi; Jan Polcher; Elizabeth Ritchie; Andi Eka Sakya; Celeste Saulo; Amith Singhee; Ardhasena Sopaheluwakan; Andrea Steiner; Alan Thorpe; Moeka Yamaji, 2020: All Kinds of Integration: WMO’s Strategy for Seamless Prediction. *Bulletin of the American Meteorological Society*. DOI 10.1175/BAMS-D-17-0302.1
19. Bischoff-Mattson, Z., G. Maree, C. Vogel, A.H. Lynch, D. Terblanche, 2020: Shape of a water crisis: Practitioner perspectives on urban water scarcity and “Day Zero” in South Africa. *Water Policy*, 22, 193-210.
20. Spangler, K.R., J. Manjourides, A.H. Lynch and G.A. Wellenius 2019: Characterizing Spatial Variability of Climate-Relevant Hazards and Vulnerabilities: A Case Study in Six New England States. *GeoHealth* 3, 104-120, DOI 10.1029/2018GH000179.
21. Goldstein, M.A., A.H. Lynch, A. Zsom, T. Arbetter, A. Chang, F. Fetterer, 2018: The step-like evolution of Arctic open water. *Scientific Reports*. DOI: 10.1038/s41598-018-35064-5.

22. Bischoff-Mattson, Z. and A.H. Lynch, 2018: Justice, science, or collaboration: divergent perspectives on Indigenous cultural water in Australia's Murray–Darling Basin. *Water Policy*, 20, 235-251.
23. Veland, S., Schoville-Simonds, M., Schorre, A.K., Lynch, A.H., Nordbø, M.J., Hochachka, G., Gram-Hanssen, I., El Khoury, A., Bjørken, M., 2018: Narrative matters for sustainability: transforming the role of storytelling for adapting to 1.5°C futures. *Current Opinion on Environmental Sustainability Special Issue on 1.5°C Climate Change and Social Transformation*, 31, p 41-47. DOI: 10.1016/j.cosust.2017.12.005
24. Parker, C.L., Bruyère, C.L., Mooney, P.A., Lynch, A.H., 2017: The Response of Land-Falling Tropical Cyclone Characteristics to Projected Climate Change in Northeast Australia. *Climate Dynamics*, 1-19. <https://doi.org/10.1007/s00382-018-4091-9>.
25. Parker, C.L., Lynch, A.H., Mooney, P.A., 2017: Factors Affecting the Trajectory and Intensification of Tropical Cyclone Yasi (2011). *Atmospheric Research* 194, 27-42. DOI: 10.1016/j.atmosres.2017.04.002
26. Bischoff-Mattson, Z., A.H. Lynch, 2017: Integrative governance of environmental water in Australia's Murray-Darling Basin: evolving challenges and emerging pathways. *Environmental Management* 60, 41-56. DOI: 10.1007/s00267-017-0864-x
27. Veland, S. and Lynch, A.H., 2017: Arctic ice edge narratives: scale, discourse, and ontological security. *Area* 49, 9-17. DOI: 10.1111/area.12270
28. Spangler, K.R., A.H. Lynch and S. Spera, 2017: Precipitation Drivers of Cropping Frequency in the Brazilian Cerrado: Evidence and Implications for Decision-Making. *Weather, Climate and Society* 9, 201-213.
29. Lynch, A.H., D. Griggs, L. Joachim, E. Salminen, C. Heider, T. Kestin, X. Zhu and S. Veland, 2016: Addressing the Challenges of Diverse Knowledge Systems through Landscape Analysis: A Case Study in the Barmah-Millewa, Australia. *Regional Environmental Change*. 17, 767-776. DOI: 10.1007/s10113-016-1069-1.
30. Lynch, A.H., M.C. Serreze, E.N. Cassano, A.D. Crawford and J. Stroeve, 2016: Linkages between Arctic summer circulation regimes and regional sea ice anomalies. *J. Geophys. Res.* 121 (13), 7868-7880.
31. Veland, S. and Lynch, A.H., 2016: Scaling the Anthropocene: How the stories we tell matter. *Geoforum* 72, 1-5.
32. Bischoff-Mattson, Z., A.H. Lynch, 2016: Adaptive governance in water reform discourses of the Murray–Darling Basin, Australia, Australia. *J. Policy Sciences*, 49 (3), 1-27.
33. Glovin, G., Lynch, A.H. & Arbetter, T.A. 2016: Wavelet analysis of polar vortex variability over the twentieth century. *J. Geophys. Res.* 121 (2), 722-732.
34. Beringer, J., L.B. Hutley, D. Abramson, S.K. Arndt, P. Briggs, M. Bristow, J.G. Canadell, L.A. Cernusak, D. Eamus, A.C. Edwards, B.J. Evans, B. Fest, K. Goergen, S.P. Grover, J. Hacker, V. Haverd, K. Kanniah, S.J. Livesley, A. Lynch, S. Maier, C. Moore, M. Raupach, J. Russell-Smith, S. Scheiter, N. Tapper, P. Uotila, 2015: Fire in Australian Savannas: From Leaf to Landscape. *Global Change Biology*, 21, 62-81.
35. Johnson, N., Alessa, L., Behe, C., Danielsen, F., Gearheard, S. Gofman-Wallingford, V., Kliskey, A., Krümmel, E., Lynch, A., Mustonen, T., Pulsifer, P., and Svoboda, M. 2015: The contributions of community-based monitoring and traditional knowledge to Arctic observing networks: Reflections on the state of the field. *Arctic* 68, doi:<http://dx.doi.org/10.14430/arctic4447>.
36. Veland, S., Lynch, A.H., Bischoff-Mattson, Z., Johnson, N. and Joachim, L. 2014: All strings attached: Negotiating relationships of geographic information science. *Geographical Research*, 52(3), 296-308.

37. Lynch, A.H., C.E. Adler and N.C. Howard, 2014: Policy Diffusion in Arid Basin Water Management: A Q Method Approach in the Murray-Darling Basin, Australia. *Regional Environmental Change*, DOI 10.1007/s10113-014-0602-3.
38. Lynch, A.H. and C.S. Hammer, 2013: Protecting and Sustaining Indigenous People's Traditional Environmental Knowledge and Cultural Practice. *Journal of the Policy Sciences*, DOI: 10.1007/s11077-012-9164-8
39. Tsukernik, M. and A.H. Lynch, 2013: Atmospheric meridional moisture flux over the Southern Ocean: A Story of the Amundsen Sea. *J. Climate*, DOI: 10.1175/JCLI-D-12-00381.1
40. Lynch, A.H., D. Griggs, L. Joachim and J. Walker, 2013: The role of the Yorta Yorta people in clarifying the common interest in sustainable management of the Murray-Darling Basin, Australia. *Journal of the Policy Sciences*. 10.1007/s11077-012-9164-8.
41. Grafton, R.Q., J. Pittock, R. Davis, J. Williams, G. Fu, M. Warburton, B. Udall, R. McKenzie, X. Yu, N. Che, D. Connell, Q. Jiang, T. Kompas, A.H. Lynch, R. Norris, H. Possingham, J. Quiggin, 2013: Water, Climate Change and Governance: Insights from the Colorado, Murray, Orange and Yellow Rivers. *Nature Climate Change*. doi:10.1038/nclimate1746.
42. Alessa, L., C. Andrade, P. Cash Cash, C.P. Giardina, M. Hamabata, C. Hammer, K. Henfin, L. Joachim, J.T. Johnson, K. Kealiikanakaolehaililani, D. Kingston, A. Kliskey, R.P. Louis, A.H. Lynch, D. McKenny, C. Marshall, M. Roberts, T. Tangara Jr., J. Wheaton-Abraham, E. Wingert, 2011. Indigenous Knowledges driving Technological Innovation. *AAPI Nexus Journal* 9(1&2): 241-248.
43. Gallucci, J., L. Tryhorn, A. Lynch and K. Parkyn, 2011: On the meteorological and hydrological mechanisms resulting in the 2003 post-fire flood event in Alpine Shire, Victoria. *Bulletin of the Australian Meteorological and Oceanographic Society*, 61, 31-42.
44. Uotila, P., T. Vihma, A. Pezza, I. Simmonds, K. Keay, A. Lynch, 2011: Relationships between Antarctic cyclones and surface conditions as derived from high resolution numerical weather prediction data. *Journal of Geophysical Research*, 116, D07109, doi:10.1029/2010JD015358.
45. Roman, C.E., A.H. Lynch and D. Dominey-Howes. 2011: What is the goal? Framing the climate change adaptation question through a problem-oriented approach. *Weather, Climate and Society*, 3, 16-30.
46. Roman, C.E., A.H. Lynch and D. Dominey-Howes. 2010: Uncovering the Essence of the Climate Change Adaptation Problem—A Case Study of the Tourism Sector at Alpine Shire, Victoria, Australia. *Tourism and Hospitality Planning & Development*, 7, 237-252
47. Lynch, A.H. and R. D. Brunner, 2010: Learning from Climate Variability: Adaptive Governance and the Pacific ENSO Applications Center. *Weather, Climate and Society*, 10.1175/2010WCAS1049.1.
48. Alexander, L.V., P. Uotila, N. Nicholls and A.H. Lynch, 2010: A new daily pressure dataset for Australia and its application to the assessment of changes in synoptic patterns during the last century. *Journal of Climate*, 10.1175/2009JCLI2972.1.
49. Tryhorn, L. and A.H. Lynch, 2010: Climate change adaptation in the Alpine Shire of Australia: a decision process appraisal. *Journal of the Policy Sciences*. DOI: 10.1007/s11077-009-9088-0, 23 pp.
50. Uotila, P., A.B. Pezza, J.J. Cassano, K. Keay and A.H. Lynch, 2009: A comparison of low pressure system statistics derived from a high resolution NWP output and three re-analysis products over the Southern Ocean, *Journal of Geophysical Research*, 114, D17105, doi:10.1029/2008JD011583, 19 pp.
51. Doherty, S., S. Bojinski, A. Henderson-Sellers, K. Noone, D. Goodrich, N. Bindoff, J. Church, T. Karl, L. Kajfez-Bogataj, A.H. Lynch, P. Mason, C. Prentice, V. Ramaswamy, R. Saunders, A.N. Simmons, M. Stafford-Smith, K. Steffen, T. Stocker, P. Thorne, K. Trenberth, M. Verstraete, and F.

- Zwiers, 2009: Post IPCC AR4: Lessons learned for future climate change research and observations. *Bulletin of the American Meteorological Society*, 90, 497-513.
52. Brown, J., A.H. Lynch and A.G. Marshall, 2009: Variability of the Indian Ocean Dipole in coupled model paleoclimate simulations. *Journal of Geophysical Research*, 114, D11105, doi:10.1029/2008JD010346.
  53. Hahndorf, D., K. Dethloff, A.G. Marshall and A.H. Lynch, 2009: Climate regime variability for past and present time-slices simulated by the Fast Ocean Atmosphere Model. *Journal of Climate* 22, 58–70.
  54. Marshall, A. G., and A. H. Lynch, 2008: The sensitivity of the Australian summer monsoon to climate forcing during the late Quaternary, *Journal of Geophysical Research*, 113, D11107, doi:10.1029/2007JD008981.
  55. Tryhorn, L., A.H. Lynch, R. Abramson and K. Parkyn, 2008: On the Mechanisms Driving Post-Fire Flash Floods: A Case Study. *Monthly Weather Review*, 136, 1778-1791, DOI: 10.1175/2007MWR2218.1.
  56. Lynch, A.H., L. Tryhorn, and R. Abramson, 2008: Working at the boundary: facilitating interdisciplinarity in climate change adaptation research, *Bulletin of the American Meteorological Society*, 89 169-179.
  57. Wyser, K., C.G. Jones, P. Du, E. Girard, U. Willén, J. Cassano, J. H. Christensen, J. A. Curry, K. Dethloff, J.-E. Haugen, D. Jacob, M. Køltzow, R. Laprise, A. Lynch, S. Pfeifer, A. Rinke, M. Serreze, M. J. Shaw, M. Tjernström and M. Zagar, 2008: An Evaluation of Arctic Cloud and Radiation processes during the SHEBA year: Simulation results from 8 Arctic Regional Climate Models. *Climate Dynamics* 30, 203-223.
  58. Lynch, A.H., L.R. Lestak, P. Uotila, E.N. Cassano, L. Xie, 2008: A factorial analysis of storm surge flooding in Barrow, Alaska. *Monthly Weather Review*, 136, 898-912.
  59. Huntington, H.P., R. Brunner, L.C. Hamilton, A. Lynch, C. Nicolson, A.E.J. Ogilvie and A. Voinov, 2007: Toward understanding the human dimensions of the rapidly changing arctic system: Insights and approaches from five HARC projects. *Regional Environmental Change*, 7, 173-186, DOI 10.1007/s10113-007-0038-0
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98. Lynch, A.H. and W. Wu, 2000: Impacts of Fire and Warming in Ecosystem Uptake in the Boreal Forest. *Journal of Climate*, 13, 2334-2338.
99. Chapin III, F.S., W. Eugster, J.P. McFadden, A.H. Lynch, and D.A. Walker, 2000: Regional climate forcing: Summer differences among arctic ecosystems. *Journal of Climate*, 13, 2002-2010.

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102. Maslanik, J.A., A.H. Lynch, M.C. Serreze and W. Wu, 2000: A Case Study of Regional Climate Anomalies in the Arctic: Performance Requirements for a Coupled Model. *Journal of Climate*, 13, 383-401.
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104. Pinto, J.O., Curry, J.A., Lynch, A.H. and O. Persson, 1999: Modeling clouds and radiation for the November 1997 SHEBA IOP using a column climate system model. Special issue of *Journal of Geophysical Research on New Developments and Applications with the NCAR Regional Climate Model*, 104, 6661-6678.
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108. Lynch, A.H., 1997: Topographically generated gravity waves in the Brooks Range, Alaska. *Geophysical Research Letters*, 24, 2981-2984.
109. Bailey, D.A., A.H. Lynch and K.S. Hedstrom, 1997: The impact of ocean circulation on regional polar simulations using the Arctic region climate system model. *Annals of Glaciology*, 25, 203-207.
110. Lynch, A.H., McGinnis, D.L., Chapman, W.L. & Tilley, J.S., 1997: A Multivariate Comparison of Two Land Surface Models Integrated into an Arctic Regional Climate System Model. *Annals of Glaciology*, 25, 127-131.
111. Lynch, A.H., Glueck, M.F., Chapman, W.L., Bailey, D.A. & Walsh, J.E., 1997: Remote Sensing and Climate Modelling of the St. Lawrence Is. Polynya. *Tellus*, 49A, 277-297.
112. Weller, G., A. Lynch, T. Osterkamp, and G. Wendler, 1995. Climate change and its effects on the physical environment of Alaska. In: P. Anderson and G. Weller (Eds.), 1995. *Preparing for an Uncertain Future: Impacts of Short- and Long-Term Climate Change in Alaska*. Center for Global Change and Arctic System Research, University of Alaska Fairbanks, 5-13.
113. Lynch, A.H., Chapman, W. L., Walsh, J.E. & Weller, G., 1995: Development of a Regional Climate Model of the Western Arctic. *Journal of Climate*, 8, 1555-1570.
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115. Simmonds, I.H. & Lynch, A.H., 1992: The Influence of Pre-existing Soil Moisture Content on Australian Winter Climate. *International Journal of Climatology*, 12, 33-54.
116. Lynch, A.H., 1987: Australian East Coast Cyclones, Part 3: Case Study of the Storm of August 1986. *Australian Meteorological Magazine*, 35, 163-170.
117. Leslie, L.M., Holland, G.J. & Lynch, A.H., 1987: Australian East Coast Cyclones, Part 2: Numerical Modelling Study. *Monthly Weather Review*, 115, 3036-3053.

118. Holland, G.J., Lynch, A.H. & Leslie, L.M., 1987: Australian East Coast Cyclones, Part 1: Synoptic Overview and Case Study. *Monthly Weather Review*, 115, 3024-30369.

### **Selected Unrefereed Publications**

1. Lynch, A.H., 1997: Modeling the Arctic System: A workshop report on the state of modeling in the Arctic System Science Program. ARCUS, Fairbanks, Alaska. 141 pp.
2. ARCSS Writing Committee, 1998: Toward Prediction of the Arctic System, predicting states of the arctic system on seasonal-to-century time scales by integrating observations, process research, modeling, and assessment. Arctic Research Consortium of the United States, Fairbanks, Alaska. March 1998. 54 pp.
3. ARCSS Writing Committee, 1998: Arctic System Science: A Plan for Integration. Arctic Research Consortium of the United States, Fairbanks, Alaska.
4. Flato, G.M. and A.H. Lynch, 2001: Joint Report of the First Session of the ACSYS/CLIC Numerical Experimentation Group and the Arctic Regional Climate Model Intercomparison Project Workshop. World Climate Research Programme Informal Report No. 7/2001.
5. Sturm, M., F.S. Chapin III, D.B. Griffith, M.E. Edwards, H.P. Huntington, G.P. Kofinas, A.H. Lloyd, A.H. Lynch, B.J. Peterson, R.A. Pielke Sr., J.P. Schimel, M.C. Serreze, and G.R. Shaver. *PACTS (Pan-Arctic Cycles, Transitions and Sustainability): A Science Plan*. Published by the Land-Atmosphere-Ice-Interactions Science Management Office, P.O. Box 757740, University of Alaska Fairbanks, Fairbanks, Alaska 99775-7740, XX pp., January 2003.
6. Lynch, A., R. Brunner, E. Cassano, A. Jensen, M. Koslow, L. Lestak, W. Manley, J. Maslanik, L. Mearns, M. Pocernich, G. Sheehan, P. Sturtevant, C. Tebaldi, 2004: Barrow Climatic and Environmental Conditions and Variations - A Compendium. CIRES Report, 124 pp.
7. Beringer, J., P. Kershaw, A. Lynch, A. Marshall, N. Tapper, C. Turney, S. Van Der Kaars, 2005: A Report On The Scope For The Palaeorecord To Evaluate Historical Climate Variation And Its Effect On Fire Regimes In Australia. Report commissioned by the Australian Greenhouse Office.
8. Gørgen, K. and A. H. Lynch 2006: On the impacts of extreme events on the coastal zone of a small Alaskan community: multi-scale modelling approaches. Global Implications of Arctic Climate Processes and Feedbacks. A. Rinke and K. Dethloff, Alfred-Wegener-Institute for Polar- and Marine Research. 520: 47-50.
9. Lynch, A.H., 2008: Climate Change Adaptation: Mapping the Context. Report commissioned by the Garnaut Review.
10. Lynch, A.H., N. Nicholls, L. Alexander and D. Griggs, 2008: Defining the impacts of climate change on extreme events. Report commissioned by the Garnaut Review.
11. Lynch, A.H., N. Nicholls and D. Griggs, 2008: Defining the impacts of climate change on catastrophic events. Report commissioned by the Garnaut Review.
12. Turton, S., Hadwen, W. and R. Wilson (eds), 2009: The Impacts of Climate Change on Australian Tourism Destinations: Developing adaptation and response strategies. ISBN 9781921658006
13. Lynch, A.H., 2010: The application of the principles of adaptive governance in the assessment of public education programs relating to ecologically sustainable development. Report commissioned by the Commissioner for Environmental Sustainability.
14. Huntington, H. P., Pfirman, S., Ashjian, C., Bourgeau-Chavez, L., Francis, J. A., Haakanson, S., Hawley, R., Hepa, T., Hik, D., Hinzman, L., Lynch, A., Macrander, A. M., Miller, G. H., Moran, K., Mosley-Thompson, E. S., Makusa, S. B., Weingartner, T., Walser, M., Everett, L., Henry, L., Finkelman, E., Gaskins, R., Freeland, S., Greenway, R., White, J. C., Abdalati, W., Anandkrishnan, S., Brigham-Grette, J., Cassano, J., Francis, J. A., Hofmann, E. E., Mosley-Thompson, E. S., Newton, G. B., Pomerance, R., Rea, C., Shaver, G. R., Anthony, K. W., Weatherwax, A. T., Wilson, T., Karentz, D., Staudt, A., Geller, L., & Purcell, A. (2014). The Arctic in the Anthropocene: Emerging

research questions. The Arctic in the Anthropocene: Emerging Research Questions, .  
<http://dx.doi.org/https://dx.doi.org/10.17226/18726>.

15. Goldstein, M.A., A.H. Lynch, T.E. Arbetter and F. Fetterer, 2016: Abrupt Transitions in Arctic Open Water Area. *The Cryosphere Discussions*. doi:10.5194/tcd-2016-108
16. Parker, C.L., Lynch, A.H., Spera, S.A., Spangler, K.R., 2018: The Relationship between Tropical Cyclones Activity, Nutrient Loading, and Algal Blooms over the Great Barrier Reef. *Biogeosciences*
17. Lynch, A.H., 2018: Framework Methodology for Climate Change Adaptation: Values-Based Classification of Loss in the Urban Context. Report commissioned by the UNFCCC Adaptation Programme.
18. Brunet, G. et al. 2021: Future of Weather and Climate Forecasting. WMO Open Consultative Platform White Paper #1, 58pp.
19. Goldstein, M.A., Lynch, A.H. and Norchi, C.H., 2022: Sanctions or Sea Ice? Nature Commentary.

## SERVICE

### Professional Societies, Funding Agencies and Government

2022-2025	Chair, Research Board, World Meteorological Organization
2021-2023	Advisory Committee on Environmental Research and Education, National Science Foundation
2019-2021	Scientific Advisory Panel, World Meteorological Organization
2019-2020	Editorial Board, <i>Science Advances</i> , AAAS
2018	Founding Signatory, US Sustainable Development Goals Network
2018	World Climate Research Programme representative, 48th session of the Subsidiary Body for Scientific and Technological Advice.
2018-2019	Chair, National Science Foundation Arctic Section Portfolio Review
2018-2020	Advisory Committee for Geosciences, National Science Foundation
2017	Founding Signatory of the Geneva Actions on Human Water Security
2017-2019	Management Team, Commission on Atmospheric Sciences, World Meteorological Organization
2017-2019	Advisory Committee for Polar Programs, National Science Foundation
2017	Observer, US Delegation to the 17 <sup>th</sup> Session of the Commission on Atmospheric Sciences, World Meteorological Organization
2017, 2019	Invited Attendee, SciFoo, Google Headquarters
2015-2019	Joint Science Committee, World Climate Research Programme (Vice Chair: 2017-18).
2015-2017	Advisory Panel, Division for Climate and Global Dynamics, National Center for Atmospheric Research
2014	Belmont Forum Arctic Panel of Experts
2014-2016	President, Society for Policy Scientists
2014	Chair, Local Organizing Committee, Policy Sciences Annual Institute
2014-	International Editorial Board, <i>Journal of the Policy Sciences</i>
2013-2018	Chief Editor, <i>Weather, Climate and Society</i> , American Meteorological Society
2013-	Board Member, Policy Sciences Center, Inc.
2013-2014	National Academy of Science Committee on Emerging Research Questions in the Arctic
2013-2014	UCAR Nominating Committee
2013	Arctic Marine Ecosystem Working Group, Executive Office of the President, National Science and Technology Council

2012 Co-editor, Special Issue, *Journal of the Policy Sciences*

2011 Members Representative, University Consortium for Atmospheric Research

2011 Participant, AAAS Science and Technology Policy Leadership Seminar

2011 Co-Convener, Panel on Indigenous Knowledge, Annual Institute for the Society of Policy Sciences, Yale University, October 2011

2010-2013 Editor, *Journal of Climate* (#1 ranked climate science journal globally)

2010 Delegate, UN Permanent Forum on Indigenous Issues, 9<sup>th</sup> Session, New York, NY

2009- Adjunct Researcher, Australian National University Institute for Water Economics and Environmental Policy

2009-2011 Executive Advisory Panel of the Australia National University Climate Change Institute

2009 Chair, Thematic Foresighting Cluster, Climate Change, Energy, Water and the Environment, Office of the Chief Scientist

2008 Premier's Climate Change Reference Group, Victoria

2008 2020 Summit participant: Population, Sustainability, Climate Change, Water And The Future Of Our Cities. Australian Government

2008 Participant, State of Victoria Climate Change Summit

2007-2009 Vice President, Federation of Australian Scientific and Technological Societies

2007- Joint and Foundation Leader, Universities Climate Consortium

2007 Invited Presentation to PMSEIC Working Group on Climate Change Adaptation

2007-2009 Councillor, American Meteorological Society

2007-2009 Member, Board on Societal Impacts, American Meteorological Society

2006-2008 International Polar Year national representative

2006-2007 Lead Convener AUS WAS\*IS: Weather and Society – Integrated Studies (workshop designed to introduce students to interdisciplinary science, first designed at NCAR)

2006 Convener, Adaptation and Vulnerability Workshop, ANU, November 2006

2006-2007 Member, Australian Community Climate and Earth System Simulator (ACCESS) Science Advisory Group

2006-2007 Head, ACCESS Model Evaluation Team

2006-2007 Lead convener, Extreme Weather and Climate Events Symposium. IAMAS/IAHS, IUGG General Assembly, Perugia, Italy, July 2007.

2005-2006 Convener, Workshop on Earth System Models of Intermediate Complexity, Bureau of Meteorology, February 2006.

2005-2006 Member, Editorial Committee, Special Issue of Journal of Quaternary Sciences

2005-2008 National Committee on Antarctic Research, Australian Academy of Science

2005-2008 National Committee on Earth Systems Science, Australian Academy of Science

2005-2007 IAMAS Nominating Committee, International Union of Geodesy and Geophysics

2003-2006 Co-convener, American Meteorological Society Student Conference

2003-2007 Member, Board on Higher Education, American Meteorological Society

2003-2006 Member, Electorate Nominating Committee of the Section on Atmospheric and Hydrospheric Sciences, American Association for the Advancement of Science

2001-2002 Member, Panel on Climate Change Feedbacks, National Academy of Science

2001-2003 Member, Polar Research Board, National Academy of Science

2001-2002 Member, Climate Research Committee, National Academy of Science

2001 Co-convener, Modes of Variability of the Polar Climates Symposium, IAMAS, IUGG General Assembly, Innsbruck, Austria, July 2001

2000-2003 Advisory Committee, Office of Polar Programs (OPP), National Science Foundation (Chair: 2002)

2000 Associate Editor, *Annals of Glaciology*  
2000 Committee of Visitors, OPP, National Science Foundation  
1999-2001 Associate Editor, *Journal of Geophysical Research -Atmospheres*  
1999-2001 Member, American Meteorological Society Committee on Polar Meteorology and Oceanography  
1999-2009 Commissioner, International Commission on Polar Meteorology  
1998- Member, OPP Arctic System Science (ARCSS) Committee  
1998-2002 Member, Science Steering Committee, ARCSS Land-Atmosphere-Ice Interactions  
1998 Core organizing group member and workshop participant, National Science Foundation “Opportunities in Arctic Research”  
1998 Representative for ARCSS LAII at ARCSS Paleoclimate of Lakes and Estuaries Program Meeting, February 1998  
1997- Member, Department of Energy Atmosphere Radiation Measurement (ARM) Program Archive User Group  
1997 Member, Plan for Integration Committee, ARCSS  
1997 Representative for the Synthesis, Integration and Modelling Initiative at ARCSS Ocean-Atmosphere-Ice Interactions (OAI) Program Meeting, May 1997  
1997 Lead Author, Flux Study Synthesis, ARCSS  
1996-1997 Session chair and co-convener, IAMAS/IAPSO Joint Symposium, IUGG, Melbourne, Australia, July 1997  
1996-1997 Chair, Modelling Working Group, ARCSS Advisory Committee  
1994 Session chair, American Meteorological Society 4th Conference on Polar Meteorology and Oceanography, Dallas, January 1994  
1994 Program chair, International High Latitude Ocean-Ice-Atmosphere Interactions Workshop, Fairbanks, AK, July 1994  
1994 Member, Program Committee for 45th Arctic Science Conference, Anchorage and Vladivostok  
1994 Area 1 Representative for the American Association for the Advancement of Science Arctic Division  
1993 Session Chair, 44th Arctic Science Conference, Whitehorse, Yukon, Canada

*Reviewer of: manuscripts for Journal of Geophysical Research, Atmosphere-Ocean, Journal of Glaciology, Annals of Glaciology, Journal of Climate, Journal of Applied Meteorology, Polar Research, Climatic Change, Monthly Weather Review, Geophysical Research Letters, Regional Environmental Change, Global Environmental Change; proposals for National Science Foundation, National Aeronautics and Space Administration, National Environmental Research Council (U.K.) and Australian Research Council*

## **University**

### *Brown University*

2017-2019 Chair, Search Committee, cluster hire of endowed chairs in climate change  
2017-2018 Co-Chair, Climate Change and Business and Investment Practices Taskforce  
2016-2017 Chair, Search Committee, endowed chair in political science  
2016-2017 Member, Search Committee, Dean of the School of Public Health  
2015-2017 Committee on Faculty Equity and Diversity  
2015-2016 Chair, Search Committee, endowed chair in hydrology  
2015-2016 Native American and Indigenous Studies Committee

2013-2014 Selection Committee, Brazil Collaborative Research Fund, Watson Institute for International Studies  
 2013-2014 Chair, Strategic Planning, Study of Environment and Society  
 2013-2014 Chairs and Directors Agenda Committee  
 2013 Search Committee, Vice President/Chief Information Officer  
 2012-2017 Information Technology Advisory Board  
 2012-2013 President's Science Advisory Council  
 2012-2013 Graduate Council  
 2012 Environmental Studies Curriculum Committee, Office of the Dean of the College  
 2012-2015 VPR Research Computing Committee  
 2011-2012 Affirmative Action Representative, Search Committee, faculty position in climate change adaptation (CES)  
 2011-2012 Search Committee, faculty position in climate modeling (GEO)

*Monash University*

2009-2011 Professorial Promotions Committee  
 2006-2007 Search Committees: Atmospheric Science faculty, Climate Modeling Chair, Chief Research Officer, Chief Operating Officer, eResearch Director  
 2004-2007 eResearch Strategy Committee  
 2005- Monash Sustainability Institute Board  
 2005 Monash Climate strategic planning leader

*University of Colorado, Program in Atmospheric and Oceanic Sciences (PAOS), and Cooperative Institute for Research in Environmental Sciences (CIRES)*

2002-2003 Chair, Search Committee for joint PAOS/CIRES faculty hire  
 2002 PAOS Minor Advisor  
 2002 External Review Committee, Mountain Research Station  
 2001-2003 PAOS Space Committee  
 2001-2003 PAOS Curriculum Committee  
 2000-2001 PAOS Representative, Arts and Sciences Council, College of Arts and Sciences  
 2000-2001 Curriculum Committee, Arts and Sciences Council, College of Arts and Sciences  
 2000-2001 PAOS Distinguished Lectureship Co-convener  
 1999-2000 CIRES Distinguished Lectureship Convener  
 1999-2001 Chair, Gustavson Memorial Endowment Committee  
 1999-2000 PAOS Curriculum Committee  
 1998-1999 CIRES Self Study Committee  
 1997-2000 PAOS Comprehensive Examinations Committee  
 1997-2002 CIRES Computing Advisory Committee  
 1997-2000 PAOS Graduate Admissions Committee  
 1997 Astrophysical, Planetary and Atmospheric Sciences Diversity Committee

*Prior universities*

1996 Member, Computing Committee, Antarctic Cooperative Research Centre.  
 1995 Member, Chancellor's Advisory Committee for the Arctic Region Supercomputing Center  
 1995 Member, Supercomputer Allocations Sub-Committee, University of Alaska Fairbanks.  
 1995 Chair, Computer Advisory Committee, University of Alaska Fairbanks.  
 1994 Manager, Geophysical Institute Visualization Lab, University of Alaska Fairbanks.  
 1993-1994 Member, Computer Advisory Committee, University of Alaska Fairbanks.



*Member of four search committees for faculty and technical staff appointments, University of Alaska Fairbanks. Chair of one search committee for a faculty appointment, University of Alaska Fairbanks Community (selected)*

Invited talk, Polar Opposites: Creative Interventions in the Arctic and Antarctica, Brown Arts Initiative (2017)

Organized with Union of Concerned Scientists to draft and publish a letter from more than 300 scientists from across the country to the Senate expressing our opposition to President Trump's White House Council on Environmental Quality Chair nominee Kathleen Hartnett White. Published in Politico (2017)

Invited talk, Brown University public event "Inspiring Women in Science" (2017)

Rhode Island Alumni Club Speaker (2015, 2016)

Earth Science Women's Network, Invited Speaker (2013, 2014, 2015)

American Association of Opinion Journalists, Invited Speaker (2013)

Indigenous Knowledge for Climate Change Adaptation: A Workshop for Indigenous Leaders, Organizer (2012)

Invited talk and consultation on climate change, Lake Eyre Basin Taskforce (2010)

Invited talk, Melbourne City Council (2010)

Invited talk, Science meets Parliament (2009)

The Age Newspaper Top 100 of 2008 (Feature article, December 2008)

Invited Op-Ed article, The Age newspaper, September 2008

Monash Arts Faculty Public Lecture 2008, State Library of Victoria, December 2008

Invited talk, "The Heat is on: Climate Change and Emergency Management' Seminar hosted by the Office of the Emergency Services Commissioner", November 2007

Invited talk, National Science Week launch events, August 2006, August 2007

Climate Change Taskforce, Committee for Melbourne, 2007-2008

Science Advisor, "Carbon Cops", December Films.

Invited talk, Science meets Parliament, March 2007

Invited talk, Parks Victoria, April 2007

Frequent contributor to news items in Australian broadcast and print media on climate change (2004-2008)

Invited talks at schools, including: Wesley College; PLC; Shelford; Kilvington; Bayside Secondary College; Myrtleford High School and Primary School; Barrow Public High School; high school students from Colorado public schools (2000-2007)

Prepared a primary school curriculum on microclimate (Shelford, 2007)

Invited talk at Leading Women's Forum (July 2004)

Invited talk to Monash Weather and Climate Society (July 2004)

Contributed to the preparation of an exhibition on Arctic climate at the Smithsonian (2003)

Lecturer, NCAR Climate and Global Change Teachers Workshop (July 2002)

Participation in two NOVA documentaries (broadcast on PBS television) on Arctic System Science (1996, 2002)

Mentored an Inupiat Eskimo student from Barrow High School on the development and completion of her science fair project (September 2001 - February 2002.)

Public lectures on Barrow climate and weather (August 2001, August 2002)

Host, "Bring Your Daughter to Work Day" elementary school student (May 2000)

Participation in planning, preparation and implementation of Earthworks Workshop for school teachers of earth science (August 1998, June 1999)

Focus of feature articles in Anchorage newspaper and on the Alaska Public Radio Network (1995)

Participation in Alaskan Women in Science project, to create curriculum materials for distribution in Alaskan schools, with the aim of educating girls on careers in science (1995)

Preparation of and featured in articles for general audience publications (National Geographic, Alaska Geographic, NASA Polar Research Report, Earth, Diplomat).

Frequent contributor to news items in US broadcast and print media on climate change (Barrow Public Radio; National Public Radio, including "Living on Earth"; Colorado Daily; Boulder Daily Camera; Anchorage Daily News; Providence Journal; The Age; Associated Press).

## TEACHING

### Classes Taught (department, when taught)

Climate Extremes and Human Rights (EEPS Winter Session 2023)

Arctic Climate and Economics (ENVS Winter Session 2019)

Weather and Climate (GEOL 2017)

Geophysical Fluid Dynamics: Waves and Instabilities (GEOL 2014)

Climate and Climate Change (GEOL 2012, 2013)

Making Connections: The Environmental Policy Process (ENVS 2013, 2015, ENVS/GEOL 2017, 2019, ENVS/EEPS 2021, 2022)

Natural Hazards and Human Vulnerability (Geography, 2009, 2010)

Science of Climate (Mathematics, 2009, 2010)

Context and Climate Change (Political Science, 2004)

Our Changing Environment (Atmos Sci, 1999, 2000)

Introduction to Atmospheric Dynamics (Atmos Sci, 1995, 1999, 2000, 2001, 2002; GEO 2012, EEPS 2022)

Atmosphere, Ocean and Climate (Atmos Sci, 1998)

Fluid Dynamics (Physics, 1994, 1997)

### Advising

#### *Undergraduate*

Stacey McIlwaine, Program in Atmospheric and Oceanic Sciences, summer 1998

Melinda Koslow, SMART<sup>i</sup> program, summer 2001, 2002

Casey Thornbrugh, SOARS<sup>ii</sup> program, summer 2002

Jillian Gallucci, Geography Honours student, 2006

Michelle D'Amico, Geography Honours student, 2008

Maya Wei, Geological Sciences Honors student, UTRA<sup>iii</sup> program, 2012-13

Andrew Vann, ENVS concentrator, 2014-2015

Lena Champlin, summer research student, 2014

Camera Ford, UTRA program, 2014

Grant Glovin, UTRA program, DEEPS Honors student, 2014-16

Andres Chang, UTRA program, DEEPS Honors student, 2016-17

Natalie Pearl, summer and semester research student, 2016-17

Helen Situ, independent study, summer research student, DEEPS Honors student, 2017-19

Sydne Hunter, Leadership Alliance<sup>iv</sup>, summer 2018

Alexis Brooks, Leadership Alliance<sup>iv</sup>, summer 2020

Ruitian Yan, summer and semester research student, 2020

Kimber Brain, summer and semester research student, 2020-21

Zihan Chen, summer and semester research student, 2020-21  
Ciara Carlyle, semester research student, 2021-22  
Emma Perkins, semester and summer research student, 2022-2023

*M.S./M.A.*

Mark Petersen, Program in Atmospheric and Oceanic Sciences (graduated: 2003)  
Thomas Kampe, Program in Atmospheric and Oceanic Sciences (graduated: 2003)  
Anna Lee, Geography (graduated: 2010)  
Kartik Madhira, Geography (graduated: 2010)  
Miguel Segura, Geological Sciences (graduated: 2014)

*Ph.D.*

David Bailey, Program in Atmospheric and Oceanic Sciences (graduated: December 2000)  
Richard Cullather, Aerospace Engineering (graduated: December 2002)  
Andrew Slater, Geography (graduated: August 2003)  
Lee Tryhorn, Geography (graduated: May 2008)  
Lisa Alexander, Geography (graduated: August 2009; winner, Mollie Holman medal for best thesis at Monash University)  
Carolina Roman, Geography (graduated: July 2010; winner, Harold D. Lasswell prize for best thesis in the policy sciences)  
Michelle D'Amico, Geography (graduated: July 2012)  
Chelsea Parker, Earth, Environmental and Planetary Sciences, (graduated: May 2017)  
Zachary Bischoff-Mattson, Earth, Environmental and Planetary Sciences, (graduated: December 2017)  
Keith Spangler, Earth, Environmental and Planetary Sciences *and* Public Health, (dual, degree, graduated: August 2019)  
Bradley Lockhart, Earth, Environmental and Planetary Sciences (current)  
Maria Luisa Rochas, Earth, Environmental and Planetary Sciences (current)

*Post-doctoral*

Wanli Wu, 1997-1999  
Eric Girard, 1998-1999  
Wei-Bing Lin, 2000-2002  
John Cassano, 2001-2002  
Klaus G6rger, 2004-2006  
Andrew Marshall, 2004-2006  
Josephine Brown, 2006-2008  
Maria Tsukernik, 2009-2011  
Jennifer Catto, 2010-2011  
Noor Johnson, 2012-2013  
Siri Veland, 2013-2014  
Chelsea Parker, 2017-2019  
Zachary Bischoff-Mattson, 2019-2021  
Xueke Li, 2019-2021

*Member, Ph.D. advisory committee for 15 students (University of Colorado), 5 students (University of Alaska), 1 student (University of Tasmania), 9 students (Monash University), and 9 students (Brown University)*

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<sup>i</sup> SMART: Summer Multicultural Access to Research Training

<sup>ii</sup> SOARS: Significant Opportunities in Atmospheric Research and Science

<sup>iii</sup> UTRA: Undergraduate Teaching and Research Awards, Brown University

<sup>iv</sup> The Leadership Alliance Summer Research-Early Identification Program is a national nine-week summer program. SMART, SOARS and SR-EIP are designed for outstanding undergraduates from underrepresented groups who are interested in preparing for graduate school.