

NATIONAL CENTER FOR ATMOSPHERIC RESEARCH
P.O. Box 3000 • Boulder, Colorado 80307-3000

Aixue Hu, PhD

Climate & Global Dynamics Division (CGD)
Telephone: (303) 497-1334 • FAX: (303) 497-1348
Email: ahu@ucar.edu

Education:

2001 Ph.D in Meteorology and Physical Oceanography, MPO/RSMAS, U. of Miami, Miami, Florida
1998 M.S. in Meteorology and Physical Oceanography, MPO/RSMAS, U. of Miami, Miami, Florida
1992 M.S. in Climatology, Department of Geophysics, Peking University, Beijing, China
1986 B.S. equivalent in Meteorology, Beijing Institute of Meteorology, Beijing, China

Professional Experience:

12/2018-present Project Scientist III, CCR/ CGD, NCAR, Boulder, CO
10/2010-12/2018 Project Scientist II, CCR/ CGD, NCAR, Boulder, CO
03/2006-09/2010 Project Scientist I, CCR/ CGD, NCAR, Boulder, CO
11/2001-02/2006 Associate Scientist III, CCR/CGD, NCAR, Boulder, CO
10/2001-present Visiting Scientist, Los Alamos Nat'l Lab, Los Alamos, NM
03/2000-10/2001 Visiting Scientist, University of Colorado, Boulder, CO
06/1998-10/2001 Technical staff research assistant, Los Alamos Nat'l Lab, Los Alamos, NM
08/1995-10/2001 Research Assistant, RSMAS, University of Miami, Miami, FL
09/1989-07/1993 Research Assistant, Peking University, Beijing, China
09/1990-01/1991 Teaching Assistant, Peking University, Beijing, China
07/1986-10/1989 Teaching Assistant, Beijing Institute of Meteorology, Beijing, China

Professional membership:

American Geophysical Union, American Meteorological Society

Reviewer:

JGR-ocean (2004-), JGR-atmosphere (2006-), J. Climate (2004-), Progress in Oceanography (2005-), Global Change Biology (2003-), Geophysical Research Letters (2002-), Climate Dynamics (2004-), Nature (2006-), J. Physical Oceanography (2007-), Deep Sea Research (2007-), Science (2007-), Proposal review for NSF (2007-), Global and Planet Change (2008-), reviewer and contributing author for IPCC AR4 report, Paleoceanography (2008-), PNAS (2009-), International Journal of Climate (2009-), Chinese Academy Bulletin (2009-), NOAA CCDD panel review (2009), proposal review for CRFD (2009), Journal of Zhejiang University Science A (2011-), Environmental Research Letter (2012-), Atmosphere and Ocean (2011-), Climate Change (2013-), Scientific World Journal (2013-), Nature Communication (2013-), Nature Climate Change (2012-), Nature Geosciences (2012-), Journal of Atmospheric Science (2012-), Scientific Report (2014-), Netherlands Organization for Science Research proposals, Climate the Past, IEEE, PlosOne, Journal of Meteorological Research, Dynamics of Atmospheres and Oceans, Climate Dynamics, BAMS.

Service:

Board member of Environmental Research Communications (2019-)
CLIVAR Climate Dynamics Panel member (2018-2020)
US AMOC Science team Task Team 3 Co-chair (2018-2020)
US AMOC Science team Task Team 3 Vice chair (2017-2018)
Guest editor of special issue on sea level change for **Water** (2015-2017)
Convener of AGU session OS32B Understanding Regional and Global Sea Level Changes from Remote and In Situ Observations and Modeling (12/15-19/2015).
Editor for **Scientific World Journal** (2013-2017)
Organized the NCAR ECSA 2008 Junior Faculty Forum from July 8 to 10, 2008
NOAA CCDD panel review (Nov., 2009)
DOE Regional and Global Climate Modeling Panel Review (May 2010, April 2014, April 2018)

Award:

Outstanding Reviewer Awards 2016 from Environmental Research Letters
2019 CGD Special Recognition Award

Manuscripts under review:

1. Daniels, W.C., J. M Russell, C. Morrill, W. M Longo, A. E Giblin, P. Holland-Stergar, J. Welker, X. Wen, **A. Hu**, Y. Huang, 2019, Abrupt climate changes in Eastern Beringia during the past 32,000 year, GRL, submitted.
 2. **Hu, A.**, B. Otto-Bliesner, C. Morrill, J. Small, C. Bitz, and N. Rosenbloom, 2019, Tracking oceanic transport of freshwater during the 8.2k event in a high resolution coupled model, GRL, under revision.
 3. Lin^{*}, P., M. Ding, **A. Hu^{*}**, H. Liu, and J. Lu, 2019, How to best define the Atlantic multi-decadal oscillation and its spatial pattern?, J. Climate, under revision.
 4. Wu, Q., S. Liu, **A. Hu**, Y. Yao, S. R. Schroeder, YH Yao, 2019, Significant Impacts of Total Ozone Changes on Southern Hemisphere Climate during the Late Twentieth Century, Climate Dynamics, submitted.
- “*” indicates corresponding author.

Publications:

1. Wu, T., F. Zhang, J. Zhang, W. Jie, Y. Zhang, F. Wu, L. Li, J. Yan, X. Liu, X. Lu, H. Tan, L. Zhang, J. Wang, and **A. Hu**, 2020, [Beijing Climate Center Earth System Model version \(BCC-ESM1\): Model Description and Evaluation of Aerosol Simulation](#), *Geoscientific Model Development*, 13, 977-1005, doi:10.5194/gmd-13-977-2020.
2. Lin, Z., Y. Li, Y. Liu, and **A. Hu**, 2020, [Decadal Reduction of Southeastern Australian Autumn Rainfall in the Early 1990s: A Response to Sea Surface Temperature](#)

- [Warming in the Subtropical South Pacific](#), *J. Climate*, **23**, 2249-2261, doi:10.1175/JCLI-D-19-0686.1.
3. Shields, C. A., N. Rosenbloom, S. Bates, C. Hannay, **A. Hu**, A. E. Payne, J. J. Rutz, J. Truesdale, 2019, [Meridional Heat Transport during Atmospheric Rivers in High Resolution CESM Climate Projections](#), *Geophys. Res. Lett.*, **46**, 14702-14712, doi: 10.1029/2019GL085565.
 4. Si, D., **A. Hu**, H. Wang and Q. Chao, 2019, **Predicting the Atlantic Multidecadal Variability from initialized simulations**, *J. Climate*, **32**, 8701-8711, doi: 10.1175/JCLI-D-19-0055.1.
 5. Zhang, L., W. Han, K. B. Karnauskas, G. A. Meehl, **A. Hu**, N. Rosenbloom, T. Shinoda, 2019, [Indian Ocean Warming Trend Reduces Pacific Warming Response to Anthropogenic Greenhouse Gases: An Interbasin Thermostat Mechanism](#), *Geophys. Res. Lett.*, **46**, 10882-10890, doi:10.1029/2019GL08408.
 6. Little, C. M., **A. Hu**, C. W. Hughes, G. D. McCarthy, C. G. Piecuch, R. M. Ponte, M. D. Thomas, 2019, [The Relationship between United States East Coast Sea Level and the Atlantic Meridional Overturning Circulation: a Review](#), *JGR-Ocean*, **124**, doi: 10.1029/2019JC015152.
 7. Weijer, W., W. Cheng, S. S. Drijfhout, A. V. Fedorov, **A. Hu**, L. C. Jackson, W. Liu, E. L. McDonagh, J. V. Mecking, and J. Zhang, 2019, [Stability of the Atlantic Meridional Overturning Circulation: A Review and Synthesis](#), *J. Geophys. Res. Ocean*, published online 24 July 2019.
 8. Li, Y., J. Feng*, J. Li, and **A. Hu**, 2019, [Equatorial windows and barriers for stationary Rossby wave propagation](#), *J. Climate*, **32**, 6117-6135, DOI: 10.1175/JCLI-D-18-0722.1. *Corresponding authors.
 9. Wu*, T., **A Hu***, F. Gao, J. Zhang, G. A. Meehl, 2019, New insights into natural and anthropogenic forcing of global/regional climate evolution, *Climate and Atmospheric Science*, **2**, Article number: 18, doi:10.1038/s41612-019-0075-7. *Corresponding authors.
 10. He*, C., Z. Liu*, and **A. Hu**, 2019, Role of ocean in the transient response of atmospheric and oceanic heat transport to global warming, *Nature Climate Change*, **9**, 222-226, doi:10.1038/s41558-018-0387-3.
 11. Lin, P., Z. Yu, J. Lu*, M. Ding, **A. Hu**, H. Liu*, 2019, [Two Regimes of Atlantic Multidecadal Oscillation: Cross-basin Dependent or Atlantic-intrinsic](#), *Science Bulletin*, **64**, 198-204, doi:10.1016/j.scib.2018.12.027. *Corresponding authors.
 12. Li, Y., W. Han, **A. Hu**, G. A. Meehl, F. Wang, 2018, Multidecadal Changes of the Upper Indian Ocean Heat Content during 1965-2015, *J. Climate*, **31**, 7863-7884, doi: 10.1175/JCLI-D-18-0116.1.
 13. Han, W., D. Stammer, G. A. Meehl, A. Hu, F. Sienz, and L. Zhang, 2018, Multi-decadal trend and decadal variability of regional sea level over the Indian Ocean since the 1960s: roles of climate modes and external forcing, *Climate*, **6**, 0, doi:10.3390/cli6020051.
 14. Yu, T., P. Guo, J. Cheng, **A. Hu**, P. Lin, Y. Yu, 2018, Reduced Connection between the East Asian Summer Monsoon and Southern Hemisphere Circulation on Interannual timescales under Intense Global Warming, *Climate Dynamics*, doi: 10.1007/s00382-018-4121-7.
 15. **Hu A.** and S. Bates, 2018, **Internal climate variability and the projected future regional steric and dynamic sea level rise**, *Nature Communications*, **9**, 1068, doi:10.1038/s41467-018-03474-8.

16. Cao, D., Q. Wu, **A. Hu**, and Y. Yao, 2018, **Linear and Nonlinear Winter Atmospheric Responses to Extreme Phases of Low Frequency Pacific Sea Surface Temperature Variability**, *Climate Dynamics*, doi:10.1007/s00382-018-4127-1, published online Feb. 23, 2018.
17. Xu, Y. and **A. Hu**, 2018, How would 21st century climate influence Pacific decadal variability and its connection to North American rainfall? *J. Climate*, **31**, 1547-1563, DOI: 10.1175/JCLI-D-17-0319.1.
18. Hu, Z., **A. Hu*** and Y. Hu, 2018, Impacts of Interdecadal Pacific Oscillation and Atlantic Multidecadal Oscillation on Global Ocean Heat Content Distribution. *J. Climate*, **31**, 1227-1244, DOI: 10.1175/JCLI-D-17-0204.1. **corresponding author*
19. Han, W., G. A. Meehl, **A. Hu**, J. Zheng, J. Kenigson, J. Vialard, B. Rajagopalan, and Yanto, 2017: **Decadal Variability of the Indian and Pacific Walker Cells Since the 1960s: Do They Covary on Decadal Timescale?** *J. Climate*, **30**, 8447-8468, DOI: 10.1175/JCLI-D-16-0783.1.
20. Si, D. and **A. Hu**, 2017, Internally generated and externally forced multidecadal oceanic modes and their influence on the summer rainfall over East Asia. *J. Climate*, **30**, 8299-8316, doi:10.1175/JCLI-D-17-0065.1.
21. **Hu A.**, G. A. Meehl, D. Stammer, W. Han, W. G. Strand, 2017, Role of perturbing ocean initial condition on simulated regional sea level change, *Water*, **9**, 401, doi:10.3390/w9060401.
22. Otto-Bliesner, B. L., A. Jahn, R. Feng, E. C. Brady, **A. Hu**, and M. Löfverström, 2017, **Changes in Arctic Gateways Amplify North Atlantic Warming in the Late Pliocene**, *Geophys. Res. Lett.*, **44**, 957-964, doi: 10.1002/2016GL071805.
23. Han, W., G. A. Meehl, D. Stammer, **A. Hu**, B. Hamlington, J Kenigson, H. Palanisamy, P. Thompson, 2017, **Spatial Patterns of Sea Level Variability Associated with Natural Internal Climate Modes**, *Serv. Geophys.*, **38**, 217-250, DOI 10.1007/s10712-016-9386-y.
24. Bakker, P., A. Schmittner¹, J.T.M. Lenaerts, A. Abe-Ouchi, D. Bi, M.R. van den Broeke, W-L Chan, **A. Hu**, R. Lynn Beadling, S. Marsland, S.H. Mernild, O.A. Saenko, D. Swingedouw, A. Sullivan, J. Yin, 2016, Fate of the Atlantic Meridional Overturning Circulation: Strong decline under continued warming and Greenland melting, *Geophys. Res. Lett.*, **43**, 12,252-12,260, doi:10.1002/2016GL070457. [EOS Research Spotlight](#)
25. Meehl, G. A., **A. Hu**, B. Santer, S.P. Xie, 2016, Interdecadal Pacific Oscillation contributions to 20th century global surface temperature trends, *Nature Climate Change*, **6**, 1005-1008, doi:10.1038/NCLIMATE3107.
26. Meehl, G.A., **A. Hu**, and H. Teng, 2016, **Initialized decadal prediction for transition to positive phase of the Interdecadal Pacific Oscillation and resumption of larger rates of global warming**, *Nature Communication*, **7**, 11718, doi:10.1038/ncomms11718.
27. **Hu, A.**, S. Levis, G. A. Meehl, W. Han, W. Washington, K. Oleson, B. van Ruijven, M. He, and G. Strand, 2016, **Impact of Solar Panels on global climate**. *Nature Climate Change*, **6**, 290-294, doi:10.1038/NCLIMATE2843.
28. Liu, W. and **A. Hu**, 2016, **The role of the PMOC in modulating the deglacial shift of the ITCZ**. *Climate Dynamics*, published online Feb. 24, 2015, doi: 10.1007/s00382-015-2520-6.
29. **Hu, A.**, G. A. Meehl, W. Han, B. Otto-Bliesner, A. Abe-Ouchi, N. Rosenbloom, 2015, **Effects of the Bering Strait closure on AMOC and global climate under different**

- background climates.** *Progress in Oceanography*, 132, 174-196, doi:10.1016/j.pocean.2014.02.004.
30. Sejas, S. A., M. Cai, **A. Hu**, G. A. Meehl, W. Washington, P. C. Taylor, 2014: **Individual Feedback Contributions to the Seasonality of Surface Warming**, *J. Climate*, 27, 5653-5669, DOI:10.1175/JCLI-D-13-00658.1.
 31. Lu, J., **A. Hu**, Z. Zeng, 2014: **On the possible interaction between internal climate variability and forced climate change**, *Geophys. Res. Lett.*, 41, 2962-2970, doi:10.1002/2014GL059908.
 32. Han, W., G. A. Meehl, **A. Hu**, M. A. Alexander, T. Yamagata, D. Yuan, M. Ishii, P. Pegion, J. Zheng, B. D. Hamlington, X. Quan, and R. R. Leben, 2014: **Intensification of decadal and multi-decadal sea level variability in the western tropical Pacific during recent decades**, *Climate Dynamics*, 43, 1357-1379, doi:10.1007/s00382-013-1951-1.
 33. **Hu, A.**, G. A. Meehl, W. Han, J. Lu, and W. G. Strand, 2013: **Energy balance in a warm world without the ocean conveyor belt and sea ice**, *Geophys. Res. Lett.*, 6242-6246, doi:10.1002/2013GL05812340.
 34. Wu, B., D. Handorf, K. Dethloff, A. Rinke, and **A. Hu**, 2013, **Winter weather patterns over Northern Eurasia and Arctic sea ice loss**, *Mon. Wea. Rev.*, 141, 3786-3800, doi:10.1175/MWR-D-13-00046.1.
 35. Taylor, P. C., M. Cai, **A. Hu**, G. A. Meehl, W. M. Washington, G. J. Zhang, 2013, **A Decomposition of Feedback Contributions to Polar Warming Amplification**, *J. Climate*, doi:10.1175/JCLI-D-12-00696, 26, 7023-7043.
 36. Meehl, G. A., **A. Hu**, J. Arblaster, J. Fasullo, and K. E. Trenberth, 2013, **Externally forced and internally generated decadal climate variability associated with the Interdecadal Pacific Oscillation**, *J. Climate*, 26, 7298-7310.
 37. Meehl, G. A., W. M. Washington, J. M. Arblaster, **A. Hu**, H. Teng, C. Tebaldi, B. Sanderson, J. Kay, A. Gettelman, and W. G. Strand, 2013, **Climate change projections in CESM1/CAM5 compared to CCSM4**, *J. Climate*, 26, 6287-6308.
 38. **Hu, A.**, Y. Xu, C. Tebaldi, W. M. Washington and V. Ramanathan*, 2013, **Slowing down 21st century sea level rise through mitigation of short-lived climate pollutants**, *Nature Climate Change*, 3, 730-734, doi:10.1038/NCLIMATE1869. *corresponding author ([NCAR News Release](#); [NSF News Release](#); [Climate Central News Release](#); [Scripps News Release](#))
 39. **Hu, A.** and C. Deser, 2013, **Uncertainty in future regional sea level rise due to internal climate variability**, *Geophys. Res. Lett.*, 40, 2768-2772, doi: 10.1002/grl50531. ([EOS Research Spotlight](#))
 40. Liu, W., Z. Liu and **A. Hu**, 2013, **The stability of an evolving Atlantic meridional overturning circulation**, *Geophys. Res. Lett.*, 40, 1562-1568, doi:10.1002/grl.50365.
 41. Gregory, J. M., D. Bi, M. A. Collier, M. R. Dix, A. C. Hirst, A. Hu, M. Huber, R. Knutti, S. J. Marsland, G. A. Meehl, M. Meinshausen, H. A. Rashid, L. D. Rotstayn, A. Schurer, J. A. Church, 2013, **Climate models without pre-industrial volcanic forcing underestimate historical ocean thermal expansion**, *Geophys. Res. Lett.*, 40, 1600-1604, doi:10.1002/grl.50339. ([EOS Research Spotlight](#))
 42. **Hu, A.** G.A. Meehl, W. Han, J. Yin, B. Wu, M. Kimoto, 2013, **Influence of continental ice retreat on future global climate**, *J. Climate*, 26, 3087-3111.
 43. Zhang, G. J., Ming Cai, and **A. Hu**, 2013, **Energy consumption and the unexplained winter warming over northern Asia and North America**, *Nature Climate Change*, 3,

- 466-470, doi:10.1038/NCLIMATE1803. ([NCAR News Release](#); [Scripps Institute of Oceanography news release](#); [Florida State University News Release](#))
44. Meehl, G. A., **A. Hu**, C. Tebaldi, J. M. Arblaster, W. M. Washington, H. Teng, B. Sanderson, T. Ault, W. G. Strand, and J. B. White III, 2012, **Relative outcomes of climate change mitigation related to global temperature versus sea level rise**, *Nature Climate Change*, 576-580, doi:10.1038/NCLIMATE1529.
 45. Meehl, G. A., W. M. Washington, J. M. Arblaster, **A. Hu**, H. Teng, C. Tebaldi, W. G. Strand, and J. B. White III, 2012: **Climate system response to external forcings and climate change projections in CCSM4**. *J. of Climate*, 25, 3661-3683.
 46. **Hu, A.**, G. A. Meehl, W. Han, A. Timmermann, B. Otto-Bliesner, Z. Liu, W. M. Washington, W. Large, A. Abe-Ouchi, M. Kimoto, K. Lambeck, and B. Wu, 2012, **Role of the Bering Strait on the hysteresis of the ocean conveyor belt circulation and glacial climate stability**, *Proceedings of the National Academy of Sciences*, 17, 6417-6422, doi:10.1073/pnas.1116014109. ([Science Now Report](#); [PNAS Article Highlights](#) [NCAR's Report on Bering Strait](#))
 47. **Hu, A.**, G. A. Meehl, W. Han, A. Abe-Ouchi, C. Morrill, Y. Okazaki, M. O. Chikamoto, 2012, **The Pacific-Atlantic Seesaw and the Bering Strait**, *Geophys. Res. Lett.*, L03702, doi:10.1029/2011GL050567 ([EOS Research Spotlight](#)).
 48. Meehl, G. A., J. M. Arblaster, J. T. Fasullo, **A. Hu**, K. E. Trenberth, 2011, **Model-based evidence of deep-ocean heat uptake during surface-temperature hiatus periods**, *Nature Climate Change*, 1, 360-364, doi:10.1038/NCLIMATE1229.
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 50. **Hu, A.**, G. A. Meehl, W. Han and J. Yin (2011), **Effect of the potential melting of the Greenland ice sheet on the meridional overturning circulation and global climate**, *Deep Sea Research II*, 58, 1914-1926, doi:10.1016/j.dsr.2010.10.069.
 51. Han, W., G. A. Meehl, B. Rajagopalan, J. T. Fasullo, **A. Hu**, J. Lin, W. Large, J-W Wang, X. Quan, L. L. Trenary, A. Wallcraft, S. Yeager (2010), **Indian ocean sea level rise and global warming**, *Nature Geosciences*, doi:10.1038/ngeo901, 3, 546-550.
 52. Meehl, G. A., **A. Hu** and C. Tebaldi (2010), **Decadal prediction in the Pacific region**, *J. Climate*, 23, DOI: 10.1175/2010JCLI3296.1, 2959-2973.
 53. Timmermann, A., L. Menviel, Y. Okumura, A. Schilla, U. Merkel, O. Timm, **A. Hu**, B. Otto-Bliesner, M. Schulz (2010), **Towards a quantitative understanding of millennial-scale Antarctic warming events**, *Quarterly Science Review*, 29, doi:10.1016/j.quascirev.2009.06.021, 74-85.
 54. **Hu, A.**, G.A. Meehl, B. Otto-Bliesner, C. Waelbroeck, W. Han, M.-F. Loutre, K. Lambeck, J. X Mitrovica, and Nan Rosenbloom (2010), **Influence of Bering Strait flow and North Atlantic circulation on glacial sea level changes**, *Nature Geoscience*, doi:10.1038/NCLIMATE1189, 3, 118-121 ([NCAR Press Release](#); [NSF Press Release](#)).
 55. **Hu, A.**, G. A. Meehl, W. Han and J. Yin (2009), **Transient Response of the MOC and Climate to Potential Melting of the Greenland Ice Sheet in the 21st Century**, *Geophys. Res. Lett.*, 36, L10707, doi:10.1029/2009GL037998 ([NCAR Press Release](#); [AGU Press Release](#); [NSF Press Release](#); [A summary of media coverage](#)).

56. **Hu, A.** and G. A. Meehl (2009), **Effect of the Atlantic hurricanes on the oceanic meridional overturning circulation and heat transport**, *Geophys. Res. Lett.*, 36, L03702, doi:10.1029/2008GL036680.
57. Okumura, Y. M., C. Deser, **A. Hu**, A. Timmermann and Shang-Ping Xie (2009), **North Pacific climate response to rapid weakening of the Atlantic overturning circulation: Oceanic and atmospheric pathways**, *J. Clim.*, 22, 1424-1445.
58. Meehl, G. A., **A. Hu** and B. Santer (2009), **The mid-1970s climate shift in the Pacific and the relative roles of forced versus inherent decadal variability**, *J. Clim.*, 22, 780-792.
59. **Hu, A.**, B. L. Otto-Bliesner, G. A. Meehl, W. Han, C. Morrill, E. C. Brady and B. Briegleb (2008), **Response of thermohaline circulation to freshwater forcing under present day and LGM conditions**, *J. Clim.*, 21, 2239-2258.
60. Han, W., P. J. Webster, J. Lin, W. T. Liu, R. Fu, D. Yuan, and **A. Hu** (2008), **Dynamics of intraseasonal sea level and thermocline variability in the equatorial Atlantic during 2002-2003**, *J. Physical Oceanography*, 38, 945-967.
61. **Hu, A.**, G.A. Meehl and W. Han (2007), **Role of Bering Strait in the thermohaline circulation and abrupt climate change**, *Geophys. Res. Lett.*, 34, L05704, doi:10.1029/2006GL028906.
62. **Timmermann, A.**, Y. Okumura, S.-I. An, A. Clement, B. Dong, E. Guilyardi, **A. Hu**, J. Jungclauss, U. Krebs, M. Renold, T. F. Stocker, R. J. Stouffer, R. Sutton, S.-P. Xie, J. Yin (2007), **The influence of a weakening of the Atlantic meridional overturning circulation on ENSO**, *J. Climate*, 20, 4899-4919.
63. **Hu, A.**, G.A. Meehl and W. Han (2007), **Causes of a fresher, colder northern North Atlantic in the late 20th century in a coupled model**, *Progress in Oceanography*, 73, 384-405, doi:10.1016/j.pocean.2006.07.008.
64. Han, W., G. A. Meehl and **A. Hu** (2006), **Interpretation of tropical thermocline cooling in the Indian and Pacific Oceans during recent decades**, *Geophys. Res. Lett.*, 33, L23615, doi:10.1029/2006GL027982.
65. Otto-Bliesner, S. J. Marshall, J.T. Overpeck, G.H. Miller, **A. Hu**, and CAPE Last Interglacial Project Members (2006), **Simulating warm-Arctic climate and ice sheet sensitivity to altered climate forcing during the last interglacial**, *Science*, 311, 1751-1753.
66. Meehl, G.A., W. M. Washington, B. D. Santer, W. D. Collins, J. M. Arblaster, **A. Hu**, D. M. Lawrence, H. Teng, L. E. Buja, and W. G. Strand (2006), **Climate Change Projections in the 21st Century and Climate Change Commitment in the CCSM3**, *J. Climate*, 19, 2597-2616.
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68. Stouffer, R.J., J. Yin, J.M. Gregory, K.W. Dixon, M.J. Spelman, W. Hurlin, A.J. Weaver, M. Eby, G.M. Flato, H. Hasumi, **A. Hu**, J. Jungclauss, I.V. Kamenkovich, A. Levermann, M. Montoya, S. Murakami, S. Nawrath, A. Oka, W.R. Peltier, D.Y. Robitaille, A. Sokolov, G. Vettoretti, N. Weber (2006), **Investigating the Causes of the Response of the Thermohaline Circulation to Past and Future Climate Changes**, *J. Climate*, 19, 1365-1387.

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74. **Hu, A.**, Gerald A. Meehl, and Weiqing Han, 2004: **Detecting thermohaline circulation changes from ocean properties in a coupled model.** *Geophys. Res. Lett.*, 31, L13204, doi:10.1029/2004GL020218.
75. **Hu, A.**, G.A. Meehl, W.M. Washington, A. Dai, 2004: **Response of the Atlantic thermohaline circulation to increased atmospheric CO2 in a coupled model** , *J. Climate*, 17, 4267-4279.
76. Han, W., P. Webster, R. Lukas, P. Hacker, and **A. Hu**, 2004: **Impact of atmospheric intraseasonal variability in the Indian Ocean: low-frequency rectification in equatorial surface current and transport.** *J. Phys. Oceanogr.*, 34, 1350-1372.
77. G.A. Meehl, W.M. Washington, J.M. Arblaster, and **A. Hu**, 2004: **Factors affecting climate sensitivity in global coupled models.** *J. Climate*, 17, 1584-1596.
78. **Hu, A.**, Claes Rooth, Rainer Bleck and Clara Deser 2002: **NAO influence on sea ice extent in the Eurasian coastal region**, *Geophys. Res. Lett.*, 29(22), 2053, doi:10.1029/2001GL014293.
79. Tao, Zuyu, **A. Hu**, 1994: **The blocking high and transient disturbances in Mei-yu period of 1991.** *Acta Meteorologica Sinica*, 52, 231-234.
80. Tao, Zuyu, **A. Hu**, 1994: **Climatological analysis of transient eddy in the Northern Hemisphere winter**, *Chinese Journal of Atmospheric Science*, 18, 175-184.
81. Tao, Zuyu, **A. Hu**, 1994: **Climatological analysis of transient eddy in the Northern Hemisphere winter**, *Scientia Atmospherica Sinica*, 18 (no. 3), 320-330.

Encyclopedia Entry:

1. **Hu, A.** 2012, Cryosphere, Climate Change Effects. DOI:10.1007/SpringerReference_327090. In Encyclopedia of Remote Sensing, edited by Eni G. Njoku. Published by Springer.

Meeting Summary:

1. Done, J., **A. Hu**, E. C. Farmer, J. Yin, S. Bates, A. B. Frappier, D. J. Halkides, K. H. Kilbourne, R. Sriver and J. Woodruff, 2009, **The Thermohaline circulation and tropical cyclones in past, present, and future climates**, *BAMS*, DOI:10.1175/2009BAMS2762.1, 1015-1017 (meeting summary).

Non-peer reviewed publications:

1. **Hu, A.**, B. L. Otto-Bliesner, G. A. Meehl, W. Han, C. Morrill, E. C. Brady, and B. Briegleb, Role of Bering Strait in the Thermohaline circulation's response to freshwater forcing under present day and last glacial maximum conditions. Oral presentation at the 2009 Alaska Marine Science Symposium, Jan. 19-23, 2009, Anchorage, Alaska.
2. **Hu, A.** and G. A. Meehl, The possible role of hurricanes in the climate system, Oral presentation at 89th American Meteorological Society Annual Meeting, Jan. 12-25, 2009, Phoenix, AZ (presented by G. A. Meehl).
3. **Hu, A.**, G. A. Meehl, W. Han and J. Yin, Can melting of Greenland Ice Sheet cool global climate? Oral presentation at 89th American Meteorological Society Annual Meeting, Jan. 12-25, 2009, Phoenix, AZ.
4. **Hu, A.** and G. A. Meehl, **Effect of idealized hurricanes on the Atlantic meridional heat transport**. Presented as poster at 2008 Ocean Sciences Meeting, 2-7 March, 2008, Orlando, FL.
5. **Hu, A.**, B. L. Otto-Bliesner, G. A. Meehl, W. Han, C. Morrill, E. C. Brady and B. Briegleb, **Response of thermohaline circulation to freshwater forcing under present day and LGM conditions**. Oral presentation at the 2007 AGU Fall Meeting, 10-14 December, 2007, San Francisco. GC44A-04.
6. **Hu, A.**, G.A. Meehl and W. Han, 2006, **Role of Bering Strait on thermohaline circulation and abrupt climate change**. Poster presented at the 2006 AGU Fall Meeting, 11-15 December, 2005, San Francisco, CA.
7. **Hu, A.** and G. A. Meehl, 2005: **Bering Strait Throughflow and the Thermohaline circulation**. Poster presented at the 2005 AGU Fall Meeting, 5-9 December, 2005, San Francisco, CA.
8. Han, W., G.A. Meehl, and **A. Hu**, 2005: **Indian Ocean sea surface temperature variability and change since 1960s: forcing and process**. Paper presented at the 2005 AGU Fall Meeting, 5-9 December, 2005, San Francisco, CA.
9. **Hu, A.**, G. A. Meehl, W. Han, 2004: **Detecting thermohaline circulation changes from ocean properties in a coupled model**. Paper presented at the 13th *Conference on Interactions of the Sea and Atmosphere*, 9-13 August 2004, Portland, ME.
10. **Hu, A.**, G. A. Meehl, W. Han, 2003: **Detecting thermohaline circulation changes from ocean properties**. *EOS Transactions*, Vol 48, No. 46, GC31B-0182.
11. Dai, A., W.M. Washington, G.A. Meehl, T.W. Bettge, W.G. Strand, and **A. Hu**, 2003: **Long-term Variations in the 1000+ Year PCM Control Run**. Paper presented at the 14th *Symposium on Global Change and Climate Variations*, 9-13 Feb. 2003, Long Beach, CA.
12. **Hu, A.**, G.A. Meehl, W.M. Washington, and A. Dai, 2003: **Changes in thermohaline circulation in future climate**. Paper presented at the 14th *Symposium on Global Change and Climate Variations*, 9-13 Feb. 2003, Long Beach, CA.

13. **Hu, A.** , Claes Rooth and Rainer Bleck, 1999: **Effects of the Arctic fresh water input on the Meridional Overturning Circulation and Sea ice**, In *EOS, Transactions, AGU* , Vol 80, No. 49, OS11A-14.
14. **Hu, A.**, Claes Rooth and Rainer Bleck , 1998: Sea ice simulations with Miami Isopycnic Coordinate Ocean Model, In: *EOS, Transactions, AGU*, Vol 79, No. 17, OS51A-01.

Invited talks:

02/18-20/2009 attend the “International workshop on global change projection: Modeling, intercomparison, and impact assessment” jointly with 2nd international workshop on Kakushin Program, Yokohama, Japan and give an invited talk: Decadal Prediction in the Pacific.

02/22/2010-02/26/2010 attending Ocean Sciences meeting at Portland, OR and gave an invited talk “A feedback between the Bering Strait and ice age climate”.

06/10/2010 invited talks “Feedback between Bering Strait and Ice Age Climate Stability” and “Transient Response of the MOC and Climate to Potential Destabilization of the Land Ice in the Future” at the Center for Climate System Research, University of Tokyo, Tokyo, Japan.

06/15/2010 invited talk “CCSM4 and decadal prediction” at the Center for Climate System Research, University of Tokyo, Tokyo, Japan.

06/24/2010 invited talk “Transient Response of the MOC and Climate to Potential Destabilization of the Land Ice in the Future” at Chinese Academy of Meteorological Sciences, Beijing, China.

06/28/2010 invited talk “Influence of Bering Strait flow and North Atlantic circulation on glacial sea-level changes” at the workshop on “the advance scientific questions of the ocean dynamics and the global warming” in Beijing, China.

09/10/2010 invited talk by University of Texas at Austin, Institute of Geophysics “Sensitivity of ice age climate to northern oceanic pathway between Pacific and Atlantic”. Visited University of Texas at Austin on Sept. 9-10, 2010

07/06/2012 invited presentation at Department of Atmospheric and Oceanic Science of Peking University, Beijing “Impact of the potential land-based ice loss on the AMOC and global climate”.

07/08/2012 invited presentation at the Institute of Climate System Research of the Chinese Academy for Meteorological Sciences, Beijing “Bering Strait and the Pacific-Atlantic seesaw during Heinrich event”.

07/09/2012 invited presentation at the Nansen-Zhu International Research Center of Institute of Atmospheric Physics, Beijing “Bering Strait, AMOC hysteresis and the glacial-interglacial climate stability”.

07/10/2012 invited presentation at Beijing Climate Center, Beijing “Effect of the potential melting of the Greenland ice sheet on the meridional overturning circulation and global climate in the future”.

07/12/2012 invited presentation at Institute of Oceanography, Chinese Academy of Science, Qingdao “Effect of the potential melting of the Greenland ice sheet on the meridional overturning circulation and global climate in the future”

07/13/2012 invited presentation at Ocean University of China, Qingdao “Impact of the potential land-based ice loss on the AMOC and global climate”.

12/09-13/2013 invited presentation at AGU fall meeting for session “Paleoclimatic History of the Pacific Sector of the Arctic II” and the title of the talk is “Effect of the Bering Strait on the AMOC hysteresis and glacial climate stability”.

08/01/2013 invited talk “Uncertainty in future regional sea level rise due to internal climate variability” at Beijing Climate Center, Beijing

08/02/2013 invited talk “Effects of the Bering Strait closure on AMOC and global climate under different background climates” at Beijing Climate Center, Beijing

08/05/2013 invited talk “Decadal internal climate variability and its impact on global climate” at Beijing Climate Center, Beijing

08/07/2013 invited talk “Decadal internal climate variability and its impact on global climate” at Chinese Academy of Meteorological Sciences, Beijing

07/31/2014 invited talk at Chinese Academy of Meteorological Sciences, Beijing China. The title of the talk is: Interaction of internal climate variability and forced climate change

08/05/2014 invited talk at Institute of Atmospheric Physics, Beijing, China. The title of the talk is: Slowing down 21st century sea level rise through mitigation of short lived climate pollutants

08/07/2014 invited talk at Department of Atmospheric and Oceanic Sciences, Peking University, Beijing, China. The title of the talk is: Influence of Bering Strait on AMOC and glacial climate

08/08/2014 invited talk at Beijing Climate Center, Beijing China. The title of the talk is: Energy balance in a warm world without AMOC and sea ice.

07/05/2015 invited talk “Avoided Sea Level Rise from thermal expansion for RCP4.5 versus RCP8.5” at Peking University, Beijing, China.

07/07/2015 invited talk “The role of PMOC in modulating the deglacial shift of the ITCZ” at Chinese Academy of Meteorological Sciences, Beijing, China.

07/09/2015 invited talk “Impact of solar panels on regional and global climate” at National Climate Center, Beijing, China.

07/15/2015 invited talk “Impact of solar panels on global climate” at Institute of Atmospheric Physics, Chinese Academy of Science, Beijing, China.

07/11/2016 invited talk “**Dependence of the AMOC stability on background climates**” at University of Bremen, Bremen, Germany

07/26/2016 invited talk “**Dependence of the AMOC stability on background climates**” at Max Plank Institute of Meteorology, Hamburg, Germany

11/06-07/2017 attending “Aoshan Forum: International coupled data assimilation symposium & The 11th national ocean data assimilation conference of China” and gave an invited talk “Role of perturbing ocean initial condition in simulated regional sea level change”, Qingdao, China.

11/09/2017 invited talk “Contributions of Interdecadal Pacific Oscillation and Atlantic Multidecadal Oscillation to Global Ocean Heat Content Distribution”, National Climate Center, Beijing, China.

Meetings and seminars:

05/04-06/2009 attend the “First U.S. Atlantic Meridional Overturning Circulation (AMOC) Annual Meeting” and gave an oral presentation “Transient Response of the MOC and Climate to Potential Melting of the Greenland Ice Sheet in the 21st Century” at Annapolis, MD.

05/22/2013 CGD seminar “Bering Strait, AMOC hysteresis and the glacial-interglacial climate stability”

06/15-18/2009 poster “Effect of Atlantic hurricanes on the oceanic meridional overturning circulation and heat transport” at CCSM workshop, June 15-18, 2009, Breckenridge, CO

06/15-18/2009 poster “Transient response of the MOC and climate to potential melting of the Greenland ice sheet in the 21st century” at CCSM workshop, June 15-18, 2009, Breckenridge, CO

10/6/2009 research report “A feedback between Bering Strait and ice age climate”

12/1/2009 CGD seminar “Bering Strait and ice age climate stability”

01/18-21/2010 attended AMS annual meeting at Atlanta, GA and gave an oral presentation “Can oceanic meridional overturning circulation cause abrupt climate change”.

02/22/2010-02/26/2010 attending Ocean Sciences meeting at Portland, OR and gave an invited talk “A feedback between the Bering Strait and ice age climate”.

03/29/2010-04/01/2010 attending DOE integrated climate change modeling science team meeting and presented two posters. 1. “Influence of Bering Strait flow and North Atlantic circulation on glacial sea

level changes” 2. “Effect of the potential melting of the Greenland Ice sheet on the meridional overturning circulation and global climate in the future”.

12/08-10/2010 attended the CESM ocean model working group meeting at Santa Fe, NM and presented “Ice age climate and the oceanic pathway between Pacific and Atlantic”.

12/11-14/2010 attended the AGU 2010 Fall Meeting at San Francisco, CA and presented a poster “Influence of the continental ice retreat on Future Global Climate”.

04/04-09/2011 attended the EGU annual meeting at Vienna and presented a poster “Impact of the background conditions on the climate response to external forcings”.

05/10/2011 CGD seminar “Impact of the potential land-based ice loss on the AMOC and global climate”

06/28-07/07/2011 attended IUGG general assembly at Melbourne, Australia and gave an oral presentation “Influence of the Northern oceanic pathway between Pacific and Atlantic on ice age climate”

09/19-22/2011 attended DOE Climate and Earth System Modeling meeting and presented “Role of the Bering Strait on Glacial Climate Stability”

10/24-27/2011 attended the WCRP Open Science Conference at Denver, CO and gave an oral presentation entitled “Glacial climate stability and the oceanic pathway in the North Pacific”

11/14/2011 visited AOML of NOAA and gave an oral presentation entitled “The potential influence of the land-based ice loss on MOC and global climate”

11/15/2011 visited MPO of RSMAS, University of Miami and gave an oral presentation entitled “Bering Strait, the MOC and the glacial-interglacial climate stability”

12/13/2011 educational presentation to Chinese Aviation delegates “Climate Change Research”, Boulder, CO

01/22-26/2012 attending 92 AMS annual meeting and presented “The Pacific-Atlantic Seesaw and the Bering Strait” at New Orleans, LA

04/23-27/2012 attended the IPY2012 meeting at Montreal, Canada and gave an oral presentation “Influence of the Continental Ice Retreat on Future Global Climate”.

06/18-21/2012 attended CESM workshop and presented an oral presentation “Bering Strait, AMOC hysteresis and abrupt climate change”, and also a poster “Effect of the potential melting of the Greenland ice sheet on the meridional overturning circulation and global climate in the future”, and Influence of continental ice retreat on future global climate”

07/03-05/2012 attended the “2012 LASG summer symposium on climate variability and changes” at Xining, China and presented “Role of the Bering Strait on the Hysteresis of the Ocean Conveyor Belt Circulation and Glacial Climate Stability”.

09/24/2012 oceanography seminar at CU for course ATOC4060 entitled “Influences of small switch on global climate -- Impact of the Bering Strait on glacial-interglacial climate”.

01/06-01/10/2013 attended the AMS 93rd annual meeting at Austin, TX and gave an oral presentation “Bering Strait's effect on AMOC independent of the background climate”

Aixue Hu, G. Meehl, W. Han, B. L. Otto-Bliesner, A. Abe-Ouchi, and N. Rosenbloom.

06/17-20/2013 attending the CESM annual workshop and presented oral talk “Uncertainty in future regional sea level rise due to internal climate variability”

07/15-19/2013 attending AMOC annual meeting at Baltimore, MD and presented an oral presentation “Effects of the Bering Strait closure on AMOC and global climate under different background climates”

08/01/2013 invited talk “Uncertainty in future regional sea level rise due to internal climate variability” at Beijing Climate Center, Beijing

08/02/2013 invited talk “Effects of the Bering Strait closure on AMOC and global climate under different background climates” at Beijing Climate Center, Beijing

08/05/2013 invited talk “Decadal internal climate variability and its impact on global climate” at Beijing Climate Center, Beijing

08/07/2013 invited talk “Decadal internal climate variability and its impact on global climate” at Chinese Academy of Meteorological Sciences, Beijing

12/09-12/13/2013 attending AGU fall meeting at San Francisco and given an invited talk entitled “Effect of the Bering Strait on the AMOC hysteresis and glacial climate stability” at Paleoclimatic history of Pacific Sector of Arctic session.

02/02-06/2014 attended 94th AMS annual meeting and gave an oral presentation of “Uncertainty in future regional sea level rise due to internal climate variability” at Atlanta, GA

04/17/2014 research report “Energy balance in a warm world with AMOC and sea ice”

05/12-15/2014 DOE BER PI meeting and presented “Effect of Bering Strait closure on global climate under different background climates”

06/16-19/2014 attend CESM workshop and presented “Energy balance in a warm world without AMOC and sea ice”

07/31/2014 invited talk at Chinese Academy of Meteorological Sciences, Beijing China. The title of the talk is: Interaction of internal climate variability and forced climate change

08/05/2014 invited talk at Institute of Atmospheric Physics, Beijing, China. The title of the talk is: Slowing down 21st century sea level rise through mitigation of short lived climate pollutants

08/07/2014 invited talk at Department of Atmospheric and Oceanic Sciences, Peking University, Beijing, China. The title of the talk is: Influence of Bering Strait on AMOC and glacial climate

08/08/2014 invited talk at Beijing Climate Center, Beijing China. The title of the talk is: Energy balance in a warm world without AMOC and sea ice

09/09-11/2014 Attended US AMOC PI meeting at Seattle, WA and presented a poster “Energy balance in a warm world without AMOC and sea ice”

01/04-08/2015 Attended AMS annual meeting and presented a poster “Industry scale application of solar panels and global climate” at Phoenix, AZ

05/04-05/07/2015 attended AGU joint assembly at Montreal, CA and gave an oral presentation “Stability of the AMOC depends on the background climate”

06/16/2015 oral presentation “Stability of the AMOC depends on the background climate” on the CESM workshop, Breckenridge, CO.

12/14-18/2015 attend AGU fall meeting at San Francisco and presented a poster entitled “Influence of the freshwater forcing pathway on the AMOC during 8.2k event”

05/23-25/2016 attended Workshop on Connecting Paleo and Modern Oceanographic Data to Understand AMOC over Decades to Centuries and presented a poster entitled “Effect of the background climate on AMOC stability”

06/21/2016 talk “Impact of Solar panels on global climate” at CESM workshop, Breckenridge, CO

09/20/2016 talk at CLIVAR open science meeting at Qingdao, China “**Dependence of the AMOC stability on background climates**”

09/20/2016 poster “Influence of internal climate variability on mitigating the projected future regional sea level rise” at CLIVAR open science meeting in Qingdao, China

09/22/2016 poster “Impact of Solar panels on global climate” at CLIVAR open science meeting at Qingdao, China

11/11/2016 research report “The role of perturbing ocean initial condition on simulated regional sea level change”.

11/28-12/01/2016 attending the RGCM PI meeting at Washington DC and presented two posters “Impact of Solar panels on global climate” and “Thermal and haline effects on AMOC stability under different background climates”.

01/23-26/2017 attend AMS annual meeting at Seattle and presented a poster “Role of perturbing ocean initial condition on simulated regional sea level change”

05/23-25/2017 attending 2017 US AMOC Science Team Meeting and gave an oral presentation “Influence of the freshwater forcing pathway on the AMOC during 8.2k event in a high resolution coupled model” at Santa Fe, NM

06/19-22/2017 attending CESM workshop and gave an oral presentation “– Influence of internal climate variability on mitigating the projected future regional sea level rise” Boulder, CO

07/10-07/14/2017 attend CLIVAR regional sea level meeting at New York and presented an oral talk “role of perturbing ocean initial condition on simulated regional sea level change”

08/17/2017 give a webinar for RGCM Highlat entitled “internal climate variability and mitigation of the projected future regional sea level rise”

12/11-15/2017 attended AGU fall meeting and gave an oral presentation “Contributions of Internal Climate Variability to Mitigation of Projected Future Regional Sea Level Rise” at New Orleans, LA

01/23/2018 gave a CGD seminar “Internal Climate Variability and potentially avoided impact on Projected Future Regional Sea Level Rise”

02/12-16/2018 attended Ocean Sciences Meeting and presented an oral presentation “Influence of the Freshwater Forcing Pathway on the AMOC during 8.2k Event in a High Resolution Coupled Model” at Portland, OR

Ph.D Advisors:

Drs. Claes Rooth and Rainer Bleck

Ph.D Dissertation:

Changes in the Arctic and their impact on the oceanic Meridional Overturning Circulation,
University of Miami, 171pp, 2001