

Andrew N. Rhines

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Education

Ph.D, Applied Math, Harvard University (*May 2015*)
B.A., Physics, Reed College (*May 2007*)

Research Experience & Employment

Postdoctoral Fellow <i>University of Washington</i>	2015 – <i>Seattle, WA</i>
Research Associate <i>Harvard University</i>	2015 – <i>Cambridge, MA</i>
Visiting Scholar <i>Bjerknes Centre for Climate Research</i>	11-12/2011, 5-8/2012 <i>Bergen, Norway</i>
Research Assistant <i>Harvard University</i>	2008 – 2015 <i>Cambridge, MA</i>
Physicist <i>Venture Ad Astra</i>	2007-2008 <i>Portland, OR</i>

Publications

Rhines, A. K. A. McKinnon, M. Tingley, and P. Huybers. Seasonally Resolved Distributional Trends of North American Temperatures Show Contraction of Winter Variability. *Journal of Climate*, 30(3):11391157, Feb 2017. DOI: 10.1175/JCLI-D-16-0363.1

Mueller, N., A. Rhines, D. Ray, S. Siebert, N. Michele Holbrook, and P. Huybers. Global relationships between cropland intensification and cooler extreme summer temperatures over the last 50 years, *submitted*, 2016.

Rhines, A. and N. Goldenson. Optimal Selection of Ensemble Boundary Conditions for Climate Downscaling. In *Proceedings of the 6th International Workshop on Climate Informatics: CI 2016*. Sept 2016, 159 pp., doi: 10.5065/D6K072N6.

McKinnon, K. A., A. Rhines, M. Tingley and P. Huybers. The changing shape of Northern Hemisphere summer temperature distributions, *J. Geophys. Res. Atmos.*, 2016. DOI: 10.1002/2016JD025292

Proistosescu, C., A. Rhines, and P. Huybers. Identification and interpretation of non-normality in atmospheric time series, *Geophysical Research Letters*, 2016. DOI: 10.1002/2016GL068880

McKinnon, K. A., A. Rhines, M. Tingley and P. Huybers. Long-lead predictions of Eastern US hot days from Pacific sea surface temperatures, *Nature Geoscience*, 2016. DOI: 10.1038/ngeo2687

Mueller, N., E. E. Butler, N. Michele Holbrook, K. A. McKinnon, A. Rhines, and P. Huybers. Evidence for cooling of US Midwest summer temperature extremes from cropland intensification, *Nature Climate Change*, 2015. DOI: 10.1038/nclimate2825

Rhines, A., M. Tingley, K. A. McKinnon, and P. Huybers. Decoding the precision of historical temperature observations, *Quarterly Journal of the Royal Meteorological Society*, 2015. DOI: 10.1002/qj.2612

Huybers, A., K. A. McKinnon, A. Rhines, and M. Tingley. US Daily Temperatures: The Meaning of Extremes in the Context of Nonnormality. *Journal of Climate* 27 (19), 7368-7384, 2014. DOI: 10.1175/JCLI-D-14-00216.1

Rhines, A. and P. Huybers. Sea ice and dynamical controls on pre-industrial and Last Glacial Maximum accumulation in central Greenland. *Journal of Climate*, 2014. DOI: 10.1175/JCLI-D-14-00075.1

Rhines, A. and P. Huybers. Frequent summer temperature extremes reflect changes in the mean, not the variance. *Proceedings of the National Academy of Sciences*, 110(7):E546E546, 2013. DOI: 10.1073/pnas.1218748110

Rhines, A. and P. Huybers. Estimation of spectral power laws in time uncertain series of data with application to the Greenland Ice Sheet Project 2 $\delta^{18}\text{O}$ record. *Journal of Geophysical Research*, 116(D1), 2011. DOI: 10.1029/2010jd014764

Teaching Experience

Guest Lecturer, *ATMS 586: Current Research in Climate Change*, University of Washington, Fall 2016.

Guest Lecturer, *ATMS 587: Fundamentals of Climate Change*, University of Washington, Fall 2015.

Teaching Fellow, *EPS 22: The Fluid Earth*, Harvard, Spring 2014 (with Peter Huybers).

Head Teaching Fellow, *AM 105b: ODEs and PDEs*, Harvard, Spring 2011 (with Eli Tziperman).

Teaching Fellow, *AM 105b: ODEs and PDEs*, Harvard, Spring 2010 (with Eli Tziperman).

Teaching Assistant, *Physics 200 II*, Reed College, Spring 2006 (with Johnny Powell).

Teaching Assistant, *Physics 200 I*, Reed College, Fall 2005 (with John Essick).

Honors, Awards, and Grants

Nathaniel Shaler Teaching Award (2014).

James S. McDonnell Foundation Postdoctoral Fellowship (2014).

Harvard University Certificate of Distinction in Teaching (2014).

American Geophysical Union Outstanding Student Paper Award (2013).

Harvard University Certificate of Distinction in Teaching (2011).

NSF/Research Council of Norway Grant: Nordic Research Opportunity (2011).

AGU Student Travel Grant for Chapman Conference (2012).

NSF Graduate Research Fellowship (2009–2013).

Phi Beta Kappa, Reed College (2007).

TREND Program Research Award, University of Maryland (2006).

Commendations for Academic Excellence, Reed College (2005, 2006, 2007).

Invited Talks

Geophysical Sciences Colloquium, University of Chicago, February 10, 2017.

Program on Climate Change Research Seminar, University of Washington, November 22, 2016.

Physics Departmental Seminar, Reed College, November 16, 2016.

Environmental Sciences and Engineering Seminar, Caltech, April 27, 2016.

EAPS Seminar, MIT, December 9, 2015.

Dynamics Seminar, University of Washington, October 15, 2015.
iMAGE Climate Informatics keynote, NCAR, September 24, 2015.
EAPS Sack Lunch Seminar, MIT, December 4, 2013.

Other Presentations and Posters

Poster, Climate Informatics, NCAR, September 22, 2016.
Poster, AGU Fall Meeting, December 17, 2015.
Transatlantic Science Week (invited talk), Boston, November 7, 2015.
Poster, AMS Atmosphere Ocean Fluid Dynamics, June 15-19, 2015.
Harvard ClimaTea, March 4, 2015.
Harvard ClimaTea, October 9, 2014.
Poster, Climate Informatics, NCAR, September 25, 2016.
Talk, AGU Fall Meeting, December 12, 2013.
Public talk, Science in the News, Harvard Medical School, November 20, 2013.
Poster, AGU Fall Meeting, December 15, 2012.
Poster, EGU annual meeting, Vienna, Austria, April 25, 2012.
Poster, AGU Chapman Conference: Remote Sensing of the Water Cycle, February 21, 2012.
Talk, Bjerknes Centre for Climate Research Colloquium, November 21, 2011.
Talk, Graduate Climate Conference, MIT/WHOI, October 29, 2011.
Talk, Paleolunch Seminar, WHOI, October 27, 2011.
Talk, AOS Days, MIT, June 20, 2011.
Harvard ClimaTea, March 22, 2011.
Poster, AGU Fall Meeting, December 15, 2010.
Poster, AGU Fall Meeting, December 15, 2009.
Harvard ClimaTea, October 27, 2009.
Talk, AOS Days, NYU, May 18, 2009.

Recent Conferences and Workshops Attended

iMAGE Climate Informatics, NCAR, September 21-23, 2016.
Rosshypalooza, University of Chicago, July 2016.
AGU Fall Meeting, December 2015.
Transatlantic Science Week, Boston, November 4-6, 2015.
iMAGE Climate Informatics, NCAR, September 24-25, 2015.
AMS Atmosphere Ocean Fluid Dynamics, June 15-19, 2015.
AGU Fall Meeting, December 2014.
iMAGE Climate Informatics, NCAR, September 25-26, 2014.
AGU Fall Meeting, December 2013.
Graduate Climate Conference, WHOI, November 1-3, 2013.
AGU Fall Meeting, December 2012.
Advanced Climate Dynamics Course, Snoheim, Norway, August 20-31, 2012.
EGU Annual Meeting, Vienna, Austria, 22-27 April, 2012.
AGU Chapman Conference: Remote Sensing of the Water Cycle, 19-22 February, 2012.
Graduate Climate Conference, WHOI, October 27-30, 2011.
Atmosphere and Ocean Science Days, MIT, June 20-23, 2011.

From Process to Proxy, Yale, January 14-15, 2011.

AGU Fall Meeting, December 2010.

Advanced Climate Dynamics Course, Lyngen, Norway, June 8-19, 2010.

CCSM Workshop, NCAR, July 26-31, 2009.

Service Activities

Conference co-chair, Climate Informatics (2017).

Hackathon chair, Climate Informatics (2016).

Program Committee co-chair, Climate Informatics (2016).

Co-convener, AGU session, Fall Meeting (2015).

Convener, AGU session, Fall Meeting (2014).

Reviewer for: *Journal of Climate*, *Climate of the Past*, *Geophysical Research Letters*, *Climate Dynamics*, *Weather and Forecasting*, *Nature*, *Science*.

Organizer, Harvard ClimaTea seminar series, (2011–2012).

Member of the American Geophysical Union, American Meteorological Society, Royal Meteorological Society, and European Geophysical Union.