

DAVID W. J. THOMPSON

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Department of Atmospheric Science
Colorado State University
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EDUCATION

Ph.D. Dep't. of Atmospheric Sciences, University of Washington, Seattle, Wa. 2000
Dissertation title: Annular Modes in the Atmospheric General Circulation
Thesis advisor: Professor J. M. Wallace

M.S. Dep't. of Atmospheric Sciences, University of Washington, Seattle, Wa. 1998

B.S. Dep't. of Aerospace Engineering, University of Colorado, Boulder, Co. 1994

POSITIONS

2011 - present. Professor, Dept. of Atmospheric Sciences, Colorado State University.

Research interests: Analysis/diagnosis of large scale climate variability; analysis of climate change; large scale atmospheric dynamics; stratosphere/troposphere coupling; atmosphere/ocean interaction; coupling between dynamics and stratospheric ozone; atmospheric circulation response to anthropogenic forcing.

2006 - 2011. Associate Professor, Dept. of Atmospheric Sciences, Colorado State University.

2001 - 2006. Assistant Professor, Dept. of Atmospheric Sciences, Colorado State University.

1995-2000. Graduate research assistant, Dept. of Atmospheric Sciences, University of Washington.

1994. Undergraduate research, Dept. of Aerospace Engineering, University of Colorado.

AWARDS / SIGNIFICANT SERVICE

NASA Earth System Science Fellowship, 1999.

National Science Foundation, Faculty Early Career Development (CAREER), 2001.

NOAA OAR Outstanding Scientific Paper Award for 2003.

James B. Macelwane Medal, American Geophysical Union, 2004.

Fellow, American Geophysical Union, 2004.

Charney Lecturer, American Geophysical Union spring meeting, 2005.

Abell Outstanding Early-Career Faculty Award, Colorado State University, 2006

Monfort Professor Award, Colorado State University, 2006

Popular Science (junior scientist award), 2006

Meisinger Award, American Meteorological Society, 2008.

Coordinating Lead Author: Chapter 4, Scientific Assessment of Ozone Depletion 2010

TEACHING / MENTORING

Thesis advisor/primary mentor (CSU):

Current students:

Elliott Foust (M. S.)

Jonathan Woodworth (M. S.)

Albert Osso (visiting Ph. D. student from Univ. of Barcelona)

Current postdoctoral researchers:

Ying Li (Ph. D. GFDL/Princeton)

Completed degrees:

Anthony Worsham (M. S. 2002)
Michelle L'Heureux (M. S. 2004; co-advisor with D. Randall)
Jason Furtado (M. S. 2005)
Katie Argo (M. S. 2009)
Kate Mullen (M. S. 2011)
Laura Ciasto (M. S. 2004; Ph. D. 2008)
Amy Butler (M. S. 2005; Ph. D. 2009)
Kevin Grise (M. S. 2007; Ph. D. 2011)

Graduate student committees, member (external to CSU):

Cegeon Chan (MIT; Ph. D. 2009)
Ivar Seierstad (University of Bergen; Ph.D. 2008)
Ying Li (Princeton University/GFDL; Ph.D. reading committee member 2011)

Graduate student committees, member (CSU):

Jeremiah Sjoberg (Ph. D. in progress)
David Duncan (M. S. in progress)
Stephanie Slade (M. S. 2012)
Kate Musgrave (Ph.D. 2011)
Levi Silvers (M. S. 2006; Ph.D. 2011)
Todd Jones (M. S. 2010)
Yohei Takano (M. S. 2011)
James Benedict (M.S. 2005; Ph.D. 2009)
Dan Lindsey (Ph. D. 2008)
Josh Horstman (M. S. 2008; Department of Statistics)
Paul Quelet (M.S. 2006)
Christopher Castro (Ph.D. 2005)
Christiana Stan (Ph.D. 2005)
Maike Ahlgrimm (M. S. 2004)
Russ Schumacher (M.S. 2004)
Eric Gilleland (Ph. D. 2004; Department of Statistics)
Wesley Terwey (M.S. 2003)
Philip Klotzbach (M.S. 2002)

Classes taught:

AT350: Weather and Climate
(2001, 2003, 2005, 2009)
AT606: Introduction to Climate
(2005)
AT655: Objective Analysis in the Atmospheric Sciences
(2002, 2003, 2004, 2005, 2007, 2009, 2010, 2011)
AT750: Analysis and Diagnosis of Climate Variability
(2002, 2004, 2006, 2008, 2011)
Short course in large-scale dynamics: University of Bergen, Norway June 2009.

Undergraduate mentoring:

Claudette Ojo (undergraduate CMMAP summer internship)

Dept. of Atmospheric Sciences, University of Washington (1995-2000)

Teaching Assistant, Climate (ATMS211)
Teaching Assistant, Weather (ATMS101)
Department Lead Teaching Assistant, 1996-1998

REFEREED PUBLICATIONS

1998

Thompson, D. W. J. and J. M. Wallace, 1998: The Arctic Oscillation signature in the wintertime geopotential height and temperature fields. *Geophys. Res. Lett.*, **25**, 1297-1300.

2000

Thompson, D. W. J. and J. M. Wallace, 2000: Annular modes in the extratropical circulation. Part I: Month-to-month variability. *J. Climate*, **13**, 1000-1016.

Thompson, D. W. J., J. M. Wallace, and G. C. Hegerl, 2000: Annular modes in the extratropical circulation. Part II: Trends. *J. Climate*, **13**, 1018-1036.

Wallace, J. M., D. W. J. Thompson, and Z. Fang, 2000: Comments on "Northern Hemisphere teleconnection patterns during extreme phases of the zonal-mean circulation". *J. Climate*, **13**, 1037-1039.

Hartmann, D. L., J. M. Wallace, V. Limpasuvan, D. W. J. Thompson, and J. R. Holton, 2000: Can ozone depletion and global warming interact to produce rapid climate change? *Proc. of the Nat. Acad. of Sci.*, **97**, 1412-1417.

2001

Thompson, D. W. J. and J. M. Wallace, 2001: Regional climate impacts of the Northern Hemisphere annular mode. *Science*, **293**, 85-89.

2002

Wallace, J. M., and D. W. J. Thompson, 2002: Annular Modes and Climate Prediction? *Physics Today*, **55**, 28-33.

Thompson, D. W. J., M. P. Baldwin, and J. M. Wallace, 2002: Stratospheric connection to Northern Hemisphere wintertime weather: implications for prediction. *J. Climate*, **15**, 1421-1428.

Wallace, J. M., and D. W. J. Thompson, 2002: The Pacific Center of Action of the Northern Hemisphere Annular Mode: Real or Artifact? *J. Climate*, **15**, 1987-1991.

Thompson, D. W. J., and S. Solomon, 2002: Interpretation of recent Southern Hemisphere climate change. *Science*, **296**, 895-899.

2003

Thompson, D. W. J., S. Lee, M. P. Baldwin, 2003: The Northern Hemisphere annular mode/North Atlantic Oscillation: Atmospheric Processes. *AGU Monograph on the North Atlantic Oscillation*. AGU Geophysical Monograph **134**, 81-112.

Baldwin, M. P., D. B. Stephenson, D. W. J. Thompson, T. J. Dunkerton, A. J. Charlton, and A. O'Neill, 2003: Stratospheric memory and skill of extended-range weather forecasts. *Science*, **301**, 636-640.

Gillett, N., and D. W. J. Thompson, 2003: Simulation of recent Southern Hemisphere climate change. *Science*, **302**, 273-275.

2004

Ciasto, L., and D. W. J. Thompson, 2004: North Atlantic atmosphere/ocean interaction on intraseasonal timescales. *J. Climate*, **17**, 1617-1621.

Limpasuvan, V., D. W. J. Thompson, and D. L. Hartmann 2004: On the lifecycle of sudden stratospheric warmings. *J. Climate*, **17**, 2584-2596.

Thompson, D. W. J., and D. J. Lorenz, 2004: The signature of the annular modes in the tropical troposphere. *J. Climate*, **17**, 4330-4342.

2005

Thompson, D. W. J., M. P. Baldwin, and S. Solomon, 2005: Stratosphere-troposphere coupling in the Southern Hemisphere. *J. Atmos. Sci.*, **62**, 708-715.

Hall, A., A. Clement, D. W. J. Thompson, A. Broccoli, C. Jackson, 2005: The importance of atmospheric dynamics in the Northern Hemisphere wintertime climate response to changes in the Earth's orbit. *J. Climate*, **18**, 1315-1325.

- Limpasuvan, V., D. W. J. Thompson, and D. L. Hartmann, 2005: Reply. *J. Climate*, **18**, 2778-2780.
- Thompson, D. W. J., and S. Solomon, 2005: Recent stratospheric climate trends as evidenced in radiosonde data: Global structure and tropospheric linkages. *J. Climate*, **18**, 4785-4795.
- Limpasuvan, V., D. L. Hartmann, D. W. J. Thompson, K. Jeev, and Y. L. Yung 2005: Stratosphere-troposphere evolution during polar vortex intensification. *J. Geophys. Res.*, **110**, D24101, doi:10.1029/2005JD006302.
- Solomon, S., D. W. J. Thompson, R. W. Portmann, S. J. Oltmans, and A. M. Thompson 2005: On the distribution and variability of ozone in the tropical upper troposphere: Implications for tropical deep convection and chemical-dynamical coupling. *Geophys. Res. Lett.*, **32**, L23813, 10.1029/2005GL024323
- 2006**
- L'Heureux, M. L., and D. W. J. Thompson 2006: Observed relationships between the El-Nino/Southern Oscillation and the extratropical zonal-mean circulation. *J. Climate*, **19**, 276-287.
- Solomon, S., R. W. Portmann, T. Sasaki, D. J. Hofman, D. W. J. Thompson 2006: Four decades of ozonesonde measurements over Antarctica. *J. Geophys. Res.*, **110**, D21311, doi: 10.1029/2005JD005917.
- Thompson, D. W. J., J. C. Furtado and T. S. Shepherd 2006: On The Tropospheric Response to Anomalous Stratospheric Wave Drag and Radiative Heating. *J. Atmos. Sci.*, **63**, 2616-2629.
- 2007**
- Solomon, S., R. W. Portmann, and D. W. J. Thompson 2007: Contrasts between Antarctic and Arctic Ozone Depletion. *Proc. Nat. Academy of Sciences*, **104**, 445-449.
- Hendon, H. H., D. W. J. Thompson, and M. C. Wheeler 2007: Australian rainfall and surface temperature variations associated with the Southern Hemisphere annular mode. *J. Climate*, **20**, 2452-2467.
- Butler, A. H., D. W. J. Thompson, K. R. Gurney, 2007: Observed relationships between the southern annular mode and atmospheric carbon dioxide. *Global Bio. Cycles*, **21**, GB4014, doi: 10.1029/2006GB002796.
- Forster, P. M., G. Bodeker, R. Schofield, S. Solomon, D. W. J. Thompson, 2007: Effects of ozone cooling in the tropical lower stratosphere and upper troposphere. *Geophys. Res. Lett.*, **34**, L23813, doi:10.1029/2007GL031994.
- Keeley, S. P. E., N. P. Gillett, D. W. J. Thompson, S. Solomon, and P. M. de F. Forster, 2007: Is Antarctic Climate Most Sensitive to Ozone Depletion in the Mid or Lower Stratosphere? *Geophys. Res. Lett.*, **34**, L22812, doi:10.1029/2007GL031238.
- 2008**
- Ciasto, L. M. and D. W. J. Thompson, 2008: Observations of large-scale atmosphere-ocean interaction in the Southern Hemisphere. *J. Climate*, **21**, 1244-1259.
- Thompson, D. W. J., J. Kennedy, J. M. Wallace and P. D Jones, 2008: A large discontinuity in the mid-20th century in observed global-mean surface temperature. *Nature*, **453** doi:10.1038/nature06982.
- 2009**
- Randel, W. J., et al., 2009: An update of observed stratospheric temperature trends, *J. Geophys. Res.*, **114**, D02107, doi:10.1029/2008JD010421.
- Ciasto, L. M. and D. W. J. Thompson, 2009: Observational evidence of reemergence in the extratropical Southern Hemisphere. *J. Climate*, **22**, 1446-1453.
- Thompson, D. W. J. and S. Solomon, 2009: Understanding Recent Stratospheric Climate Change. *J. Climate*, **22**, 1934-1943.
- Grise, K., D. W. J. Thompson, and P. Forster, 2009: On the role of radiative processes in stratosphere/troposphere coupling. *J. Climate*, **22**, 4154-4161.
- Thompson, D. W. J., J. M. Wallace P. D Jones, and J. Kennedy, 2009: Identifying signatures of natural climate variability in time series of global-mean surface temperature: Methodology and Insights. *J. Climate*, **22**, 6120-6141.
- Baldwin, M.P., and D.W.J. Thompson, 2009: A critical comparison of stratosphere-troposphere coupling indices, *Q. J. R. Meteorol. Soc.*, **135**, 1661-1672.

Austin, J. et al., 2009: Coupled chemistry climate model simulations of stratospheric temperatures and their trends for the recent past. *Geophys. Res. Lett.*, **36**, L13809, doi: 10.1029/2009GL038462.

2010

- Grise, K., D. W. J. Thompson, and T. Birner, 2010: A Global Survey of Static Stability in the Stratosphere and Upper Troposphere. *J. Climate*, **23**, 2275-2292.
- Butler, A. H., D. W. J. Thompson, and R. Heikes, 2010: The steady-state atmospheric circulation response to climate change-like thermal forcings in a simple general circulation model. *J. Climate*, **23**, 3474-3496.
- Fyfe, J. C., N. P. Gillett, and D. W. J. Thompson, 2010: Comparing variability and trends in observed and modeled global-mean surface temperature. *Geophys. Res. Lett.*, **37**, L16802, doi:10.1029/2010GL044255.
- Thompson, D. W. J., J. M. Wallace, J. Kennedy, and P. D. Jones, 2010: An abrupt drop in Northern Hemisphere sea surface temperature around 1970. *Nature*, **467**, 444-447.

2011

- Roff, G., D. W. J. Thompson, and H. H. Hendon, 2011: Does increasing model stratospheric resolution improve extended-range forecast skill? *Geophys. Res. Lett.*, **38**, L05809, doi: 10.1029/2010GL046515.
- Forster, P. M., and D. W. J. Thompson (Coordinating Lead Authors), et al., 2011: Stratospheric changes and climate, Chapter 4 in Scientific Assessment of Ozone Depletion: 2010, Global Ozone Research and Monitoring Project-Report No. 52, 516 pp., World Meteorological Organization, Geneva, Switzerland.
- Thompson, D. W. J., S. Solomon, P. J. Kushner, M. H. England, K. M. Grise, and D. J. Karoly, 2011: The Antarctic ozone hole, the Southern Annular Mode, and Southern Hemisphere Climate Change. *Nature Geosciences*, doi:10.1038/ngeo1296.
- Butler, A. H., D. W. J. Thompson, and T. Birner, 2011: Isentropic slopes, down-gradient eddy fluxes, and the extratropical atmospheric circulation response to tropical tropospheric heating. *J. Atmos. Sci.*, **68**, 2282-2305.
- Kidston, J., A.S. Taschetto, D.W.J. Thompson, M.H. England, 2011: The Influence of Southern Hemisphere Sea Ice Extent on the Latitude of the Mid-Latitude Jet Stream. *Geophys. Res. Lett.*, **38**, L15804, doi:10.1029/2011GL048056.
- Young, P. J., S. Solomon, D. W. J. Thompson, K. H. Rosenlof, and J. -F. Lamarque, 2011: The seasonal cycle and interannual variability in stratospheric temperatures and links to the Brewer-Dobson circulation: An analysis of MSU and SSU data, 1979-2005. *J. Climate*, **24**, 6243-6358.
- Verlinden, K. L., D. W. J. Thompson, and G. L. Stephens, 2011: The three-dimensional distribution of clouds over the Southern Hemisphere high latitudes. *J. Climate*, **24**, 5799-5811.

2012

- Grise, K. M., and D. W. J. Thompson, 2012: Equatorial Planetary Waves and Their Signature in Atmospheric Variability. *J. Atmos. Sci.*, **69**, 857-874.
- Simpkins, G. R., L. M. Ciasto, M. H. England, and D. W. J. Thompson, 2012: Observed Relationships Between Large-Scale Climate Variability and Antarctic Sea Ice Concentration. *J. Climate*, *in press*.
- Thompson, D. W. J., and T. Birner, 2012: On the linkages between the tropospheric isentropic slope and eddy fluxes of heat during Northern Hemisphere winter. *J. Atmos. Sci.*, *in press*.

INVITED PUBLICATIONS

- Baldwin, M. P., D. W.J. Thompson, E. F. Shuckburgh, W. A. Norton, N. P. Gillett, 2003: Stratospheric Effects on Weather and Climate. *Science*, **301**, 317-319.

OTHER PUBLICATIONS

- Thompson, D. W. J. and J. M. Wallace, 1997: Detection of the Volcanic Signal in Dynamically Filtered Surface Temperature Observations. *Proc. of the 22 Climate Diagnostics Workshop*.
- Thompson, D. W. J. and J. M. Wallace, 1998: Structure of the Arctic and Antarctic Oscillations. *Proc. of the 23 Climate Diagnostics Workshop*.
- Thompson, D. W. J. and J. M. Wallace, 1999: Do recent climate trends reflect a bias in the Southern Hemisphere annular mode? *Proc. of the 24 Climate Diagnostics Workshop*.
- Thompson, D. W. J. and J. M. Wallace, 2000: Annular Modes in the Extratropical Circulation: A Global Perspective of Southern Hemisphere Climate Variability. *Preprints of the American Meteorological Society 6th International Conference on Southern Hemisphere Meteorology and Oceanography*.
- Gillett, N. P., Baldwin, M. P., D. W.J. Thompson, E. F. Shuckburgh, W. A. Norton, and J. L. Neu, 2003: "The role of the stratosphere in tropospheric climate" workshop report. *SPARC Newsletter August 2003*.
- Gillett, N. P. and D. W. J. Thompson, 2004: Simulation of the Antarctic climate response to ozone depletion. *Canadian Antarctic Research Network Newsletter, April 2004*.
- Renwick, J. and D. W. J. Thompson, 2006: The Southern Annular Mode and New Zealand climate. *Water and Atmosphere (New Zealand)*.

SERVICE

WMO Scientific Assessment of Ozone Depletion

Coordinating Lead Author: Chapter 4, Scientific Assessment of Ozone Depletion 2010

Coauthor: Chapter 5, Scientific Assessment of Ozone Depletion 2006

Reviewer (at Les Diablerets): Scientific Assessment of Ozone Depletion 2002

Centre for Climate Dynamics at the Bjerknes Centre, Bergen, Norway

Scientific Advisory Committee 2011-current.

Faculty search committee 2011

SPARC:

Co-Chair: SPARC Assessment of Stratospheric Temperature Trends (2011-current).

Member: SPARC Assessment of Stratospheric Temperature Trends (2005-2010).

Other scientific committees:

WMO Panel on "Climate impacts of ozone depletion/recovery" 2012.

Review panel: SHARP project/German science foundation, Berlin, Germany (February 2012).

CLIVAR/CLiC/SCAR Southern Ocean Scientific Steering Group (2005-current).

AMS Climate Variability and Change (2011-current).

AMS Middle Atmosphere Committee (2004-2009).

WCRP/CLiC Arctic Climate Panel (2004-2006).

Science Steering Committee, Ocean-Atmosphere-Ice Interactions, National Science Foundation Arctic System Science (2002-2004).

Participant: National Academies Workshop on Climate Data Records. Washington, D.C. 8/2003 (invited).

Review Panel: NOAA CLIVAR Atlantic

Journals:

Associate Editor, Journal of Climate (2004-).

Associate Editor, Journal of Atmospheric Science (2009-).

Guest Editor: Journal of Atmospheric Sciences special issue on Jets (2006).

Reviewer: J. Climate, J. Atmos. Sciences, Nature, Science, JGR, GRL, JMSJ, Climate Dynamics, Int. J. of Climatology, QJRMS, WMO Scientific Assessment of Ozone Depletion, IPCC AR3, IPCC AR4, IPCC: Ozone and Climate, NASA, NOAA, NSF, Dyn. of Atmospheres and Oceans,.

Scientific meeting organization:

Organizing committee: The role of the stratosphere on surface climate. Buenos Aires, Argentina, November 2012.
 Organizer (with Gabriel Lau): Wallace Symposium, Seattle, WA., Sept. 2010.
 Convener (with M. Baldwin and E. Shuckburgh): AGU Chapman conference on stratosphere/troposphere coupling. Santorini, Greece, Sept. 2007.
 Program committee: Geophysical Institute conference on polar dynamics. Bergen, Norway 2007.
 Organizing committee: AGU Chapman conference on geophysical jets. Savannah, Ga. 2006.
 Convener: Session MI05 "Large scale patterns of atmospheric variability" at the 2003 IAMAS-IUGG General Assembly, Sapporo, Japan.
 Co-organizer: "The Role of the Stratosphere in Tropospheric Climate", Whistler, Canada, April 29- May 2, 2003.
 Co-convener of Session A08: "The Arctic Oscillation" at the 1999 AGU fall meeting, San Francisco, Ca. Session included 24 oral presentations and 12 poster presentations.

Committees (Dep't of Atmospheric Science at CSU):

Faculty mentoring (2011-2012)
 Faculty search committee (2011-12)
 Chair of the curriculum committee (2008-)
 Department Web Committee (2008-2010)
 Faculty search committee (2006-7)
 New student counselor (2005-7)
 ATS Department Head search committee (2006)
 Faculty search committee (2005)
 Colloquium coordinator (2001-7)
 Department Code Committee (2004-5)
 Department Graduate Committee (2004-6)
 Faculty search committee (2002-3)
 Qualifying exam committee (2001-4)
 Herbert Riehl award committee (2001-3)
 40th anniversary organizing committee (2002)

Committees (CSU):

Voting member: college curriculum committee (2008-)
 Graduate Student Recruiting Committee (2006-7)
 Policy and Procedures Committee (2004-5)

CONFERENCE PRESENTATIONS

American Geophysical Union Fall meeting, San Francisco, CA 12/1997
 Atm. Circulation Related to Oscillations in Sea-Ice and Salinity, Reykjavik, Iceland 3/1998
 Geophysical Fluid Dynamics Laboratory consortium meeting, Princeton, NJ 7/1998
 NASA Workshop on Decadal Variability, Williamsburg, Va. 9/1998
 North Pacific Marine Science Organization annual meeting, Fairbanks, Al. 10/1998 (invited)
 NOAA Climate Diagnostics Workshop, Miami, Fla. 10/1998
 American Fisheries Society annual meeting, Vancouver, Canada 2/1999 (invited)
 The Study of Environmental Arctic Change meeting, Seattle, Wa. 6/1999 (invited)
 Geophysical Fluid Dynamics Laboratory consortium meeting, Boulder, CO. 7/1999
 Commission on Geosciences, Env., and Resources meeting, Ottawa, Canada 7/1999 (invited)
 NOAA Climate Diagnostics Workshop, Tucson, AZ. 11/1999
 Goddard Institute for Space Studies Climate Workshop, New York, NY 11/1999 (invited)
 American Meteorological Society 6th International Conference on Southern Hemisphere Meteorology and Oceanography, Santiago, Chile 4/2000
 NOAA Program in Climate and Global Change Summer Institute, Steamboat Spr., CO. 6/2000 (invited)
 Royal Meteorological Society 150th Anniversary Conference, Cambridge, UK 7/2000
 Geophysical Fluid Dynamics Laboratory consortium meeting, Princeton, NJ 9/2000

AGU Chapman Conference on the NAO, Orense, Spain 11/2000 (invited)
 American Geophysical Union Fall meeting, San Francisco, CA 12/2000
 Joint Japan-US Workshop: Coupling of the troposphere and stratosphere by dynamical, radiative and chemical processes, Kyoto, Japan 3/2001 (invited)
 European Geophysical Society General Assembly, Nice, France 3/2001
 US CLIVAR Atlantic Meeting, Boulder, CO. 6/2001
 Third Study Conference on BALTEX, Mariehamn, Finland 7/2001 (invited)
 8th Scientific Assembly of the International Association of Meteorology and Atmospheric Sciences, Innsbruck, Austria 7/2001
 131st Annual Meeting of the American Fisheries Society, Phoenix, AZ 8/2001 (invited)
 CLIVAR Workshop on the Southern Ocean, Lamont-Doherty Earth Observatory, Palisades, NY. 10/2001 (invited)
 NOAA Climate Diagnostics Workshop, La Jolla, CA. 10/2001
 American Geophysical Union Fall meeting, San Francisco, CA 12/2001
 36th Congress of the Canadian Meteorological and Oceanographic Society, Rimouski, Canada 5/2002 (invited)
 Colorado State University, Department of Atmospheric Science 40th Anniversary, Ft. Collins, CO 7/2002
 Bjerknes Centre for Climate Research, Workshop on High Latitude Climate, Bergen, Norway 9/2002 (invited)
 Bermuda Biological Station for Research/RPI, Workshop on Climate Predictability, Bermuda 10/2002 (invited)
 WOCE and Beyond: Achievements of the World Ocean Circulation Experiment. San Antonio, TX 11/2002 (invited)
 American Geophysical Union Fall meeting, San Francisco, CA 12/2002 (invited).
 Canadian Middle Atmosphere Modelling/Global Chemistry for Climate Annual Workshop, Toronto, Canada 12/2002 (invited)
 The Role of the Stratosphere in Tropospheric Climate, Whistler, Canada 4/2003.
 IUGG 2003 General Assembly, Sapporo, Japan 7/2003.
 EURESCO Conference on Achieving Climate Predictability from Paleoclimatic Data, San Feliu, Spain 10/2003 (invited)
 Climate Change in High Latitudes, Bjerknes Centenary, Bergen, Norway 9/2004 (invited).
 SORCE Science Meeting: Decadal variability in the Sun and Climate, Meredith, New Hampshire 10/2004 (invited)
 CSU Colloquium on Environmental Research, Fort Collins, CO 11/2004 (invited).
 Workshop on High Latitude Climate Change, Fairbanks, AK 12/2004 (invited).
 American Geophysical Union Fall meeting, San Francisco, CA 12/2004
 Gordon Research Conference on Polar Marine Science, Ventura, CA 3/2005 (invited).
 Climate and Cryosphere (CLiC) Science Conference, Beijing, China 4/2005 (invited).
 American Geophysical Union Spring meeting, New Orleans, LA 5/2005 (invited).
 American Meteorological Society, Middle Atmosphere Meeting, Cambridge, MA 6/2005 (invited).
 CLIVAR Modes of SH Climate Variability Workshop, Cambridge, UK 6/2005 (invited).
 Focus group on abrupt climate change (Changeling), La Jolla, CA 3/2006 (invited).
 Climate and Cryosphere (CLiC) SSG, Boulder, CO. 12/2006.
 AMOS meeting on the SAM, Adelaide, Australia 2/2007 (invited).
 AMS Middle Atmosphere Meeting, Portland, OR. 8/2007.
 Chapman Conference on Stratosphere/Troposphere coupling, Santorini, Greece 9/2007.
 Antarctic Peninsula Climate Change, Irvine, CA 6/2008 (invited).
 SPARC General Assembly, Bologna, Italy 8/2008 (invited).
 American Geophysical Union Fall meeting, San Francisco, CA 12/2008
 American Meteorological Society International Conference on Southern Hemisphere Meteorology and Oceanography, Melbourne, Australia 2/2009
 CLIVAR Southern Ocean Panel Meeting, Sydney, Australia 2/2009

Advanced Climate Dynamics Course (summer school), Bergen, Norway 6/2009
 International Association of Meteorology and Atmospheric Sciences, Montreal, Canada 7/2009
 Wallace Symposium, Seattle, WA. 9/2010
 AMS Annual Meeting, Seattle, WA. 1/2011
 Swiss Climate Change Day/Swiss Academy of Sciences, Bern, Ch. 4/2011
 Congress of the Canadian Meteorological and Oceanographic Society, Victoria, Canada 6/2011
 (invited).
 AMS AOFD meeting. Spokane, Wa. 6/2011
 CLIVAR Southern Ocean Panel Meeting, Boulder, CO 10/2011
 Centre for Climate Dynamics, Bergen, Norway, 12/2011
 American Geophysical Union Fall meeting, San Francisco, CA 12/2011
 SPARC SSG, Zurich, Ch. 2/2012

SEMINARS

University of Washington, Department of Atmospheric Sciences 5/1997
 University of Washington, Department of Atmospheric Sciences 1/1998
 National Center for Atmospheric Research, Boulder, Co. 10/1998
 University of Washington, Climate Impacts Group 11/1998, 10/1999
 Canadian Climate Modeling Centre, Victoria, Canada 12/1998
 University of Reading, Department of Meteorology, Reading UK 1/1999
 University of Washington, Department of Atmospheric Sciences 3/1999
 Northwest Research Associates, Bellevue, Wa. 3/1999
 Scripps Institute for Oceanography, La Jolla, Ca. 11/1999
 University of Washington, Department of Physical Oceanography 1/2000
 University of Washington, Department of Atmospheric Sciences 1/2000
 Texas A&M University, Department of Oceanography 2/2000
 California Institute of Technology, Division of Geological and Planetary Sciences 2/2000
 Lamont Doherty Earth Observatory, Palisades, NY 2/2000
 NASA Goddard Institute for Space Studies, New York, NY 2/2000
 University of Alaska, Natural Sciences, Fairbanks, AK 3/2000
 International Arctic Research Center, Fairbanks, AK 3/2000
 Colorado State University, Department of Atmospheric Sciences 3/2000
 University of California at Los Angeles, Department of Atmospheric Sciences 5/2000
 Massachusetts Institute of Technology, Dep't. of Earth, Atm., and Planetary Sciences 5/2000
 University of Chicago, Dep't. of Geophysical Sciences 5/2000
 University of Washington, Department of Atmospheric Sciences 8/2000
 McGill University, Dep't. of Atmospheric and Oceanic Sciences, Montreal, Canada 2/2001
 National Science Foundation, Arlington, Va. 2/2001
 NOAA OAR division seminar, Silver Springs, Md. 2/2001
 NASA Goddard Space Flight Center branch seminar, Greenbelt, Md. 2/2001
 Geophysical Fluid Dynamics Laboratory, Princeton, NJ 3/2001
 National Center for Atmospheric Research ACD Division Seminar, Boulder, Co. 5/2001
 Oxford University, Dep't. of Atm., Oceanic and Planetary Physics, Oxford, UK 7/2001
 Colorado State University, Dept. of Atmospheric Sciences, Ft. Collins, CO 11/2001
 Center for Ocean-Land-Atmosphere Studies, Calverton, MD 11/2001
 Department of Physics, Colorado State University, Ft. Collins, CO 2/2002
 Max Planck Institute for Meteorology, Hamburg, Germany 3/2002
 GKSS Research Center, Geesthacht, Germany 3/2002
 Danish Meteorological Institute, Copenhagen, Denmark 3/2002
 Colorado State University, Sigma Xi Scientific Research Society 3/2002
 University of Arizona, Department of Atmospheric Sciences 4/2002
 Northwest Research Associates, Bellevue, Wa. 4/2002
 University of Washington, Joint Institute for the Study of the Atmosphere and Ocean 5/2002
 University of Colorado, CIRES, Boulder CO 5/2002

Cornell University, Department of Earth & Atmospheric Sciences, Ithaca NY 10/2002
Meteorological Service of Canada, Toronto, Canada 12/2002
Colorado School of Mines, Department of Physics Colloquium, Golden, CO 2/2003
New York University, Courant Institute of Mathematical Sciences, New York, NY 2/2003
University of Nebraska, Department of Meteorology, Lincoln, Nebraska 4/2003.
Northwest Research Associates, Bellevue, Wa. 11/2003
Bureau of Meteorology Research Centre, Melbourne, Australia 1/2004
CSIRO Marine Research, Hobart, Australia 1/2004
CSIRO Atmospheric Research, Aspendale, Australia 1/2004
Department of Atmospheric and Oceanic Sciences, University of Wisconsin, Madison, WI 2/2004
College of Atmospheric and Oceanic Sciences, Oregon State University, Corvallis OR 2/2004
Institute of Geophysics and Planetary Physics, UCLA, Los Angeles CA 5/2004
California Institute of Technology, Pasadena CA 5/2004
University of Bergen, Geophysics Institute, Bergen, Norway 5/2004
Bjerknes Centre for Climate Research, Bergen, Norway 5/2004
University of Reading, Department of Meteorology, Reading, UK 6/2004
University of Cambridge, Department of Chemistry, Cambridge, UK 6/2004
University of Washington, Department of Atmospheric Sciences 12/2004
National Institute for Water and Atmospheric Research, Wellington, NZ 1/2006; 2/2006
Victoria University, Wellington, NZ 2/2006
National Institute for Water and Atmospheric Research, Lauder, NZ 2/2006
University of Canterbury, Christchurch, NZ 2/2006
University of Washington, Department of Atmospheric Sciences 9/2006
University of New Hampshire, Dep't. of Earth Sciences 10/2006
Massachusetts Institute of Technology, Dep't. of Earth, Atm., and Planetary Sciences 10/2006
Golder & Associates (outreach lecture on climate change), Denver, CO. 12/2006
Bureau of Meteorology Research Centre, Melbourne, Australia 2/2007
CSIRO Atmospheric Research, Aspendale, Australia 2/2007
Purdue University, West Lafayette, Indiana 3/2007
University of Toronto, Department of Physics, 6/2007.
ARUP (outreach lecture on climate change), San Francisco, CA. 7/2007.
Bureau of Meteorology Research Centre, Melbourne, Australia 10/2007.
University of Tasmania, Hobart, Australia, 12/2007.
University of Melbourne, Melbourne, Australia, 12/2007.
Monash University, Melbourne, Australia 12/2007.
National Institute for Water and Atmospheric Research, Lauder, NZ 1/2008
University of New South Wales, Sydney, Australia 1/2008
University of Reading, Department of Meteorology, Reading, UK 3/2008
ETH, Zurich, Switzerland 3/2008
Univ. of Leeds, Leeds, UK 4/2008
IFM/GEOMAR, Kiel, Germany 4/2008
University of Reading, Department of Meteorology, Reading, UK 4/2008
University of East Anglia, Climatic Research Unit 4/2008
University of Cambridge, DAMTP, Cambridge, UK 5/2008
University of Bergen, Geophysics Institute, Bergen, Norway 10/2008
University of Victoria, Victoria, Canada 11/2008
University of Washington, Department of Atmospheric Sciences 11/2008
Massachusetts Institute of Technology, Dep't. of Earth, Atm., and Planetary Sciences 1/2009
National Center for Atmospheric Research CGD Division Seminar, Boulder, Co. 1/2009
National Center for Atmospheric Research ASP Seminar, Boulder, Co. 4/2009
NOAA Aeronomy Lab, Boulder, Co. 5/2009
Department of Geophysics, University of Bergen, 6/2009
University of Stockholm, Department of Meteorology, Stockholm, Sweden 6/2009
Western Washington University, Department of Environmental Science, 4/2010

University of California, Berkeley, BASC Seminar series, 9/2010
Climate Change Research Centre, Sydney, Australia, 10/2010
Centre for Australian Weather and Climate Research, Melbourne, Australia, 11/2010
GFDL/Princeton Univ., Princeton, NJ. 2/2011
CSU, Dept. of Atmospheric Science dynamics seminar, Fort Collins, Co. 4/2011
Department of Physics/University of Bern, Bern, Ch. 4/2011
Physical Sciences Division, NOAA, Boulder, CO. 5/2011

FUNDED PROPOSALS

2000. Thompson, D. W. J. The Arctic Oscillation signature in Northern Hemisphere climate. NASA Earth System Science Fellowship Program. \$22,000.
- 2002-2007. Thompson, D. W. J. Analysis of the Southern Hemisphere Annular Mode and its role in climate change. National Science Foundation CAREER award. \$400,000.
- 2003-2006. Thompson, D. W. J. Analysis of Annular Variability in the Global Circulation. NSF Climate Dynamics Program. \$319,460.
- 2003-2006. Randall, D. A., L. D. Fowler, D. W. J. Thompson. Analysis of precipitation variability as observed by emerging satellite systems. NASA Global Precipitation Mission. \$360,000.
- 2004-2007. Thompson, D. W. J., A. S. Denning, N. Gruber. Understanding the impacts of large scale climate variability on the global carbon cycle. NASA: Earth Science Enterprise's Earth Observing System Interdisciplinary Science Program. \$868,000.
- 2006-2009. Thompson, D. W. J. Analyses of Climate Variability and Climate Change. NSF Climate Dynamics Program. \$450,000.
- 2010-2013. Thompson, D. W. J. Analyses of Large-Scale Climate Variability. NSF Climate Dynamics Program. \$685,992.