

Curriculum Vitae

Michael E. Mann

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Personal

Date of Birth: 28 December 1965
Place of Birth: Amherst, Massachusetts

Education

1998 Ph.D. Yale University, Department of Geology & Geophysics (defended 1996)
1993 M.Phil. Yale University, Department of Geology & Geophysics
1991 M.Phil. Yale University, Department of Physics
1991 M.S. Yale University, Department of Physics
1989 A.B. (double), University of California-Berkeley, Applied Math, Physics (Honors)

Honors and Awards

2002 Outstanding Scientific Paper award for 2002 by NOAA Office of Oceanic and Atmospheric Research (OAR) [for article: Delworth, T.L., Mann, M.E., Observed and Simulated Multidecadal Variability in the Northern Hemisphere, *Climate Dynamics*, 16, 661-676, 2000]
2002 Named by *Scientific American* as one of 50 top visionaries in science and technology
2002 Article [Mann et al, "Global-scale temperature patterns and climate forcing over the past six centuries", *Nature*, 392, 779-787, 1998] selected for 'fast moving fronts' by Institute for Scientific Information (ISI)
2002 Selected as one of 10 'Mead Honored Faculty', University of Virginia
1998 Council of Graduate Schools' Distinguished Dissertation Award, nominated
1997 Phillip M. Orville Prize for outstanding dissertation in the earth sciences, Yale University
1996 Alexander Hollaender Distinguished Postdoctoral Fellowship (DOE)
1989 Josiah Willard Gibbs Prize for outstanding research and scholarship in Physics, Yale University

Professional Experience (1996-present)

8/99- *Assistant Professor*, University of Virginia, Department of Environmental Sciences
1998-99 *Research Assistant Professor*, University of Massachusetts, Department of Geosciences
1997-98 *Adjunct Assistant Professor*, University of Massachusetts, Department of Geosciences
1996-98 *Alexander Hollaender Distinguished Postdoctoral Research Fellow* (DOE)

Courses Taught

University of Virginia:

EVSC 181 *Climate Change: Past and Future*
EVSC 350 *Atmosphere and Weather*
EVSC 494 *Data Analysis & Climate Change*
EVSC 494/EVAT 796 *Climate and the History of Human Culture*
EVAT 554 *Ocean-Atmosphere Dynamics*

EVAT 793 *Statistical Climatology*
University of Massachusetts:
GEO 591 *Data Analysis & Climate Change*

Advising

Postdoctoral Researchers:

Scott Rutherford, Postdoctoral Research Associate, University of Virginia, 2000-2003
Feinbao Ni (adjunct; joint w/ M. Hughes), Postdoctoral Research Associate, University of Arizona, 2002-
Pedro Ribera, (Visiting postdoctoral research fellow, University of Vigo, Spain), 2000.
Mei-Yu (joint w/ H. Epstein), Postdoctoral Research Associate, University of Virginia, 2002-

Graduate Students:

Julian Adams, M.S. 2003; Ph.D. candidate: major adviser, University of Virginia, 2000-
Caspar Ammann, Ph.D. 2000: co-adviser, University of Massachusetts, 1998-2000
Kaycie Billmark, M.S. 2000: masters thesis committee, University of Virginia, 1999-2000
Joel Carr, M.S. 2002: masters thesis committee, University of Virginia, 2000-2002
Peter Cleary, M.S. candidate: co-adviser, University of Virginia, 2002-
Benjamin Cook, M.S. candidate: co-adviser, University of Virginia, 2001-
Heidi Cullen, Ph.D. 2001: external committee member, Columbia University, 2000-01.
Dan Druckenbrod, Ph.D. 2003. masters & Ph.D thesis committee, University of Virginia, 1999-2003
Ian German-Mesner, M.S. candidate: major adviser, University of Virginia, 2002-
Kevin Jones, M.S. 2002: masters thesis committee, University of Virginia, 2001-2002
Bo-Min Sun, Ph.D. candidate: committee member, University of Massachusetts, 1998-99.
Silvia Venegas, Ph.D. 2001: outside committee member, 2000-01.
Anne Waple, Ph.D. candidate: co-adviser and committee member, University of Massachusetts, 1997-
Tana Wood, M.S. 2002: masters thesis committee, University of Virginia, 2001-2002
Zhihua Zhang, Ph.D. candidate: major adviser, University of Virginia, 2000-

Undergraduates:

Michelle L'Heureux, supervised research; Distinguished Majors Project, University of Virginia, 2001-02.

Primary Research Interests

(1) Climate signal detection and climate change attribution; (2) Statistical and time series analysis methods; (3) High-resolution paleoclimate reconstruction; (4) Study of forced and internal variability in coupled ocean-atmosphere models; and model/data intercomparison; (5) Simplified coupled ocean-atmosphere modeling; (6) Use of climate scenarios to drive process-oriented models of geophysical phenomena

Funded Proposals

2003-2006 *Decadal Variability in the Tropical Indo-Pacific: Integrating Paleo & Coupled Model Results*, NOAA-Climate Change Data & Detection (CCDD) Program [Principal Investigator: M.E. Mann (U.Va), J. Cole (U. Arizona), V. Mehta (CRCES)]
2002-2005 *Reconstruction and Analysis of Patterns of Climate Variability Over the Last One to Two Millennia*, NOAA-Climate Change Data & Detection (CCDD) Program [Principal Investigator: M.E. Mann, Co-Investigators: S. Rutherford, R.S. Bradley, M.K. Hughes]
2002-2005 *Remote Observations of Ice Sheet Surface Temperature: Toward Multi-Proxy Reconstruction of Antarctic Climate Variability*, NSF-Office of Polar Programs, Antarctic Oceans and Climate System [Principal Investigators: M.E. Mann (U. Va), E. Steig (U. Wash.), D. Weinbrenner (U. Wash)]

- 2002-2003 *Paleoclimatic Reconstructions of the Arctic Oscillation*, NOAA-Cooperative Institute for Arctic Research (CIFAR) Program [Principal Investigators: Rosanne D'Arrigo, Ed Cook (Lamont/Columbia); Co-Investigator: M.E. Mann]
- 2002-2003 *Global Multidecadal-to-Century-Scale Oscillations During the Last 1000 years*, NOAA-Climate Change Data & Detection (CCDD) Program [Principal Investigator: Malcolm Hughes (Univ. of Arizona); Co-Investigators: M.E. Mann; J. Park (Yale University)]
- 2001-2003 *Resolving the Scale-wise Sensitivities in the Dynamical Coupling Between Climate and the Biosphere*, University of Virginia-Fund for Excellence in Science and Technology (FEST) [Principal Investigator: J.D. Albertson; Co-Investigators: H. Epstein, M.E. Mann]
- 2001-2002 *Advancing predictive models of marine sediment transport*, Office of Naval Research [Principal Investigator: P. Wiberg, Co-Investigator: M.E. Mann]
- 1999-2002 *Multiproxy Climate Reconstruction: Extension in Space and Time, and Model/Data Intercomparison*, NOAA-Earth Systems History [Principal Investigator: M.E. Mann, Co-Investigators: R.S. Bradley, M.K. Hughes]
- 1998-2000 *Validation of Decadal-to-Multi-century climate predictions*, DOE [Principal Investigator: R.S. Bradley; Co-Investigators: H.F. Diaz, M.E. Mann]
- 1998-2000 *The changing seasons? Detecting and understanding climatic change*, NSF-Hydrological Science [Principal Investigators: U. Lall; Co-investigators: M.E. Mann, B. Rajagopalan, M. Cane]
- 1996-1999 *Patterns of Organized Climatic Variability: Spatio-Temporal Analysis of Globally Distributed Climate Proxy Records and Long-term Model Integrations*, NSF-Earth Systems History [Principal Investigator: R.S. Bradley; Co-Investigators: M.E. Mann, M.K. Hughes]
- 1996-1998 *Investigation of Patterns of Organized Large-Scale Climatic Variability During the Last Millennium*, DOE, Alexander Hollaender Postdoctoral Fellowship [M.E. Mann]

Professional Activities

- 2003 Member, National Academy of Sciences/National Research Council *Committee on Radiative Forcings*
- 2003 Provided testimony to U.S. Senate ('Environment and Public Works' Committee hearing, July 29)
- 2003 Chair of organizing committee, National Academy of Sciences *Frontiers of Science* symposium
- 2003 Co-convener/organizer (w/ P. Jones, V. Masson-Delmotte), IAMAS session on "Climate of the Holocene", *IUGG*
- 2003 Co-convener/organizer (w/ J. Jouzel, P. Jones, W. Dullo), special session "Climate of the past millennium", 28th General Assembly, *European Geophysical Society*
- 2003 Invited Participant, *Workshop on Estimating Climate Sensitivity*, National Academy of Sciences
- 2002 IAMAS delegate for U.S./International Commission on Climate (ICCL)
- 2002 Organizing committee, National Academy of Sciences *Frontiers of Science* symposium
- 2002 Co-convener/organizer (w/ H. Von Storch, R. Brazdil), theme session "Understanding the Late Maunder Minimum climate anomaly", Annual Spring meeting, *American Geophysical Union*
- 2002 Co-convener/organizer (w/ J. Jouzel, P. Jones, W. Dullo), special session "Climate of the past millennium", 27th General Assembly, *European Geophysical Society*
- 2001- Member, advisory board, *Earth Interactions* (American Geophysical Union)
- 2001 Chair/Organizer, session on "Climate Change Detection/Attribution", National Academy of Science *Frontiers of Science* annual symposium, Irvine, California, Nov 8-10, 2001.
- 2001 Organizer and Host, *PAGES/CLIVAR workshop on Reconstructing Late Holocene Climate*, Charlottesville, Virginia, April 17-20, 2001.
- 2001 Co-convener/organizer (w/ J. Jouzel, P. Jones), special session "Climate of the past millennium", 26th General Assembly, *European Geophysical Society*
- 2001 Co-convener/organizer, *NASA/IPRC/CLIVAR workshop on Decadal Climate Variability*, Manoa, Hawaii, Jan 8-12, 2001.

- 2000- Member of Working Group, *International PAGES/CLIVAR*
- 2000- Panel member, *NOAA Climate Change Data and Detection Program*
- 2000-02 Editor, *Journal of Climate*
- 2000 Co-convener (w/ J. Jouzel, P. Jones), special session ``Climate of the past millennium'', 25th General Assembly, *European Geophysical Society*
- 1999-00 Scientific adviser to U.S. Government (White House OSTP) on climate change
- 1999 Co-convener/organizer (w/ J. Jouzel), special session ``Data and model studies of climate changes over the last millennium'', 24th General Assembly, *European Geophysical Society*
- 1999 Invited adviser, *NOAA Global Change and Climate Panel*, Boulder, CO
- 1999 Guest editor, special issue of *Climatic Change*
- 1999 Co-convener (w/ J. Overpeck), PAGES/CLIVAR workshop on multiproxy climate reconstruction, Boulder, CO
- 1998- Lead author, Chapter 2, *Intergovernmental Panel on Climate Change (IPCC)*, Third Assessment Report
- 1998- Contributing author, Chapters 7,8,12, *Intergovernmental Panel on Climate Change (IPCC)*, Third Assessment Report
- 1997 Co-convener/organizer (w/ E. Cook, H. Pollack, D. Chapman) , theme session ``Multiproxy Climate Reconstruction...'', Annual Fall meeting, *American Geophysical Union*
- Memberships: *American Meteorological Society; American Geophysical Union; European Geophysical Society; Geological Society of America; American Physical Society; American Association for the Advancement of Science; Sigma Xi*
 - Referee for: *Nature, Science, Climatic Change, Geophysical Research Letters, Journal of Climate, JGR-Oceans, JGR-Atmospheres, Paleoceanography, Climate Dynamics, Eos, Int. J. Climatol., Water Resources Research, Holocene, Atmospheric & Solar-Terrestrial Physics; NSF, NOAA, DOE grant programs*
 - Media outreach: *CBS, NBC, ABC, CNN, CNN headline news, BBC, NPR, PBS, WCBS, Time, Newsweek, Life, US News & World Report, Economist, Scientific American, New Scientist, Discover, Science News, Science, Rolling Stone, Popular Science, USA Today, New York Times, New York Times "Science Times", Washington Post, Wall Street Journal, Boston Globe, London Times, Irish Times, AP, UPI, Reuters, Scripps Howard*, and numerous other television/print media

Refereed Journal Articles

- **Mann, M.E.**, Marshall, C.H., Haymet, A.D.J., Nematic Liquid Crystals: a Monte Carlo Simulation Study In Higher Dimensions, *Molecular Physics*, 66, 493, 1989.
- Burmester, C.P., **Mann, M.E.**, Ceder, G., Wille, L.T., de Fontaine, D., Monte Carlo Simulation of Oxygen Ordering in YBa₂Cu₃O_z, *Physica C*, 162, 1989.
- de Fontaine, D., **Mann, M.E.**, Ceder, G., States of Partial Order in YBa₂Cu₃O_z, *Physical Review Letters*, 63, 12, 1989.
- Ceder, G., Asta M., Carter, W.C., Kraitichman, M., de Fontaine, D., **Mann, M.E.**, Sluiter, M., Phase diagram and low-temperature behavior of oxygen ordering in YBa₂Cu₃O_z, *Physical Review B*, 41, 13, 1990.
- **Mann, M.E.**, Park, J., Spatial correlations of interdecadal variation in global surface temperatures, *Geophysical Research Letters*, 20, 1055-1058, 1993.
- **Mann, M.E.**, Park, J., Global scale modes of surface temperature variability on interannual to century time scales, *Journal of Geophysical Research*, 99, 25819-25833, 1994.
- Marshall, S., **Mann, M.E.**, Oglesby, R., Saltzman, B., A comparison of the CCM1-simulated climates for pre-industrial and present-day CO₂ levels, *Global and Planetary Change*, 10, 163-180, 1995.
- **Mann, M.E.**, Lall, U., Saltzman, B., Decadal-to-century scale climate variability: Insights into the Rise and Fall of the Great Salt Lake, *Geophysical Research Letters*, 22, 937-940, 1995.
- Lall, U., **Mann, M.E.**, The Great Salt Lake: A Barometer of Low-Frequency Climatic Variability, *Water Resources Research*, 31, 2503-2515, 1995.

- **Mann, M.E.**, Park, J., Bradley, R.S., Global Interdecadal and Century-Scale Climate Oscillations During the Past Five Centuries, *Nature*, 378, 266-270, 1995.
- **Mann, M.E.**, Park, J., Greenhouse Warming and Changes in the Seasonal Cycle of Temperature: Model Versus Observations, *Geophysical Research Letters*, 23, 1111-1114, 1996.
- Abarbanel, H., Lall, U., Moon, Y.I., **Mann, M.E.**, and Sangoyomi, T., Nonlinear dynamics and the Great Salt Lake: A Predictable Indicator of Regional Climate, *Energy*, 21, 655-665, 1996.
- Koch, D., **Mann, M.E.**, Spatial and Temporal Variability of ⁷Be Surface Concentrations, *Tellus*, 48B, 387-396, 1996.
- **Mann, M.E.**, Lees, J., Robust Estimation of Background Noise and Signal Detection in Climatic Time Series, *Climatic Change*, 33, 409-445, 1996.
- **Mann, M.E.**, Park, J., Joint Spatio-Temporal Modes of Surface Temperature and Sea Level Pressure Variability in the Northern Hemisphere During the Last Century, *Journal of Climate*, 9, 2137-2162, 1996.
- Rajagopalan, B., **Mann, M.E.**, and Lall, U., A Multivariate Frequency-Domain Approach to Long-Lead Climatic Forecasting, *Weather and Forecasting*, 13, 58-74, 1998.
- **Mann, M.E.**, Bradley, R.S., and Hughes, M.K., Global-Scale Temperature Patterns and Climate Forcing Over the Past Six Centuries, *Nature*, 392, 779-787, 1998.
- **Mann, M.E.**, Bradley, R.S. and Hughes, M.K., Northern Hemisphere Temperatures During the Past Millennium: Inferences, Uncertainties, and Limitations, *Geophysical Research Letters*, 26, 759-762, 1999.
- Jain, S., Lall, U., **Mann, M.E.**, Seasonality and Interannual Variations of Northern Hemisphere Temperature: Equator-to-Pole Gradient and Land-Ocean Contrast, *Journal of Climate*, 12, 1086-1100, 1999.
- **Mann, M.E.**, Park, J., Oscillatory Spatiotemporal Signal Detection in Climate Studies: A Multiple-Taper Spectral Domain Approach, *Advances in Geophysics*, 41, 1-131, 1999.
- Park, J., **Mann, M.E.**, Interannual Temperature Events and Shifts in Global Temperature: A Multiple Wavelet Correlation Approach, *Earth Interactions*, 4-1, 1-36, 2000.
- Rittenour, T., Brigham-Grette, J., **Mann, M.E.**, El Niño-like Climate Teleconnections in North America During the Late Pleistocene: Insights From a New England Glacial Varve Chronology, *Science*, 288, 1039-1042, 2000.
- Delworth, T.L., **Mann, M.E.**, Observed and Simulated Multidecadal Variability in the Northern Hemisphere, *Climate Dynamics*, 16, 661-676, 2000.
- **Mann, M.E.**, Gille, E., Bradley, R.S., Hughes, M.K., Overpeck, J.T., Keimig, F.T., Gross, W., Global Temperature Patterns in Past Centuries: An interactive presentation, *Earth Interactions*, 4-4, 1-29, 2000.
- Cullen, H., D'Arrigo, R., Cook, E., **Mann, M.E.**, Multiproxy-based reconstructions of the North Atlantic Oscillation over the past three centuries, *Paleoceanography*, 15, 27-39, 2001.
- **Mann, M.E.**, Climate During the Past Millennium, *Weather* (invited contribution), 56, 91-101, 2001.
- **Mann, M.E.**, Large-scale Temperature Patterns in Past Centuries: Implications for North American Climate Change, *Human and Ecological Risk Assessment*, 7, 1247-1254, 2001.
- Shindell, D.T., Schmidt, G.A., **Mann, M.E.**, Rind, D., Waple, A., Solar forcing of regional climate change during the Maunder Minimum, *Science*, 294, 2149-2152, 2001.
- Waple, A., **Mann, M.E.**, Bradley, R.S., Long-term Patterns of Solar Irradiance Forcing in Model Experiments and Proxy-based Surface Temperature Reconstructions, *Climate Dynamics*, 18, 563-578, 2002.
- Ribera, P., **Mann, M.E.**, Interannual variability in the NCEP Reanalysis 1948-1999, *Geophysical Research Letters*, 29 (10), 1494, doi: 10.1029/2001GL013905, 2002.
- **Mann, M.E.**, Rutherford, S., Climate Reconstruction Using 'Pseudoproxies', *Geophysical Research Letters*, 29 (10), 1501, doi: 10.1029/2001GL014554, 2002.
- Cook, E.R., D'Arrigo, R.D., **Mann, M.E.**, A Well-Verified, Multi-Proxy Reconstruction of the Winter North Atlantic Oscillation Since AD 1400, *Journal of Climate*, 15, 1754-1764, 2002.

- **Mann, M.E.**, Large-scale climate variability and connections with the Middle East in past centuries, *Climatic Change*, 55, 287-314, 2002.
- Ghil, M., Allen, M.R., Dettinger, M.D., Ide, K., Kondrashov, D., **Mann, M.E.**, Robertson, A.W., Tian, Y., Varadi, F., Yiou, P., Advanced Spectral Methods for Climatic Time Series, *Reviews of Geophysics*, 40 (1), 1003, doi: 10.1029/2000RG000092, 2002.
- Ribera, P., **Mann, M.E.**, ENSO related variability in the Southern Hemisphere, 1948-2000, *Geophysical Research Letters*, 30 (1), 1006, doi: 10.1029/2002GL015818, 2003.
- Druckenbrod, D., **Mann, M.E.**, Stahle, D.W., Cleaveland, M.K., Therrell, M.D., Shugart, H.H., Late 18th Century Precipitation Reconstructions from James Madison's Montpelier Plantation, *Bulletin of the American Meteorological Society*, 84, 57-71, 2003.
- Rutherford, S., **Mann, M.E.**, Delworth, T.L., Stouffer, R., Climate Field Reconstruction Under Stationary and Nonstationary Forcing, *Journal of Climate*, 16, 462-479, 2003.
- Gerber, S., Joos, F., Bruegger, P.P., Stocker, T.F., **Mann, M.E.**, Sitch, S., Constraining Temperature Variations over the last Millennium by Comparing Simulated and Observed Atmospheric CO₂, *Climate Dynamics*, 20, 281-299, 2003.
- Braganza, K., Karoly, D., Hirst, T., **Mann, M.E.**, Stott, P., Stouffer, R.J., Tett, S., Indices of Global Climate Variability and Change: Part I - Variability and Correlation Structure, *Climate Dynamics*, 20, 491-502, 2003.
- **Mann, M.E.**, Rutherford, S., Bradley, R.S., Hughes, M.K., Keimig, F.T., Optimal Surface Temperature Reconstructions Using Terrestrial Borehole Data, *Journal of Geophysical Research*, 108 (D7), 4203, doi: 10.1029/2002JD002532, 2003.
- Covey, C., AchutaRao, K.M., Cubasch, U., Jones, P.D., Lambert, S.J., **Mann, M.E.**, Philips, T.J., Taylor, K.E., An Overview of Results from the Coupled Model Intercomparison Project (CMIP), *Global and Planetary Change*, 37, 103-133, 2003.
- D'Arrigo, R.D., Cook, E.R., **Mann, M.E.**, Jacoby, G.C., Tree-ring reconstructions of temperature and sea level pressure variability associated with the warm-season Arctic Oscillation since AD 1650, *Geophysical Research Letters*, 30 (11), 1549, doi: 10.1029/2003GL017250, 2003.
- Andrews, J.T., Hardadottir, J., Stoner, J.S., **Mann, M.E.**, Kristjansdottir, G.B., Koc, N., Decadal to Millennial-scale periodicities in North Iceland shelf sediments over the last 12,000 cal yrs: long-term North Atlantic oceanographic variability and Solar Forcing, *Earth and Planetary Science Letters*, 210, 453-465, 2003.
- **Mann, M.E.**, Schmidt, G.A., Ground vs. Surface Air Temperature Trends: Implications for Borehole Surface Temperature Reconstructions, *Geophysical Research Letters*, 30 (12), 1607, doi: 10.1029/2003GL017170, 2003.
- **Mann, M.E.**, Jones, P.D., Global Surface Temperatures over the Past two Millennia, *Geophysical Research Letters*, 30 (15), 1820, 10.1029/2003GL017814, 2003.
- Shindell, D.T., Schmidt, G.A., Miller, R., **Mann, M.E.**, Volcanic and Solar forcing of Climate Change During the Pre-Industrial era, *Journal of Climate*, in press, 2003.
- Adams, J.B., **Mann, M.E.**, D'Hondt, S., The Cretaceous-Tertiary Extinction: Modeling Carbon Flux and Ecological Response, *Paleoceanography*, in press, 2003.
- Zhang, Z., **Mann, M.E.**, Cook, E.R., Alternative Methods of Proxy-Based Climate Field Reconstruction: Application to the Reconstruction of Summer Drought Over the Conterminous United States back to 1700 From Drought-Sensitive Tree Ring Data, *Holocene*, in press, 2003.
- Adams, J.B., **Mann, M.E.**, Ammann, C.M., Proxy evidence for an El Nino-like Response to Volcanic Forcing, *Nature*, in revision, 2003.
- L'Heureux, M.L., **Mann, M.E.**, Cook B.I., Gleason, B.E., Vose, R.S., Atmospheric Circulation Influences on Seasonal Precipitation Patterns in Alaska during the latter 20th Century, *Journal of Geophysical Research*, in revision, 2003.
- Cook, B.I., **Mann, M.E.**, D'Odorico, P., Smith, T.M., Statistical Simulation of the Influence of the NAO on European Winter Surface Temperatures: Applications to Phenological Modeling, *Journal of Geophysical Research*, submitted, 2003.

- Frauenfeld, O.W., Davis, R.E., **Mann, M.E.**, A new Pattern of Multidecadal Pacific Ocean-Atmosphere Interaction, *Journal of Climate*, submitted, 2003.
- Rutherford, S., **Mann, M.E.**, Osborn, T.J., Bradley, R.S., Briffa, K.R., Hughes, M.K., Jones, P.D., Proxy-based Northern Hemisphere Surface Temperature Reconstructions: Sensitivity to Methodology, Predictor Network, Target Season and Target Domain, *Journal of Climate*, submitted, 2003.

Other Reviewed Contributions

- Beniston, M., Pielke, R.A., Arpe, K., Keuler, K., Laprise, R., **Mann, M.E.**, Rinke, A., Parker, D.E., Climate Modelers Meet in Switzerland, *Eos*, 78, 383, 1997.
- **Mann, M.E.**, Bradley, R.S., Hughes, M.K. and Jones, P.D., Global Temperature Patterns, *Science*, 280, 2029-2030, 1998.
- **Mann, M.E.**, Lessons For a New Millennium (invited 'perspective' article), *Science*, 289, 253-254, 2000.
- **Mann, M.E.**, Bradley, R.S., Hughes, M.K., Long-term variability in the El Nino Southern Oscillation and associated teleconnections, Diaz, H.F. & Markgraf, V. (eds) *El Nino and the Southern Oscillation: Multiscale Variability and its Impacts on Natural Ecosystems and Society*, Cambridge University Press, Cambridge, UK, 357-412, 2000.
- Bradley, R.S., Hughes, M.K. and **Mann, M.E.**, Comments on "Detection and Attribution of Recent Climate Change: A Status Report", *Bulletin of the American Meteorological Society*, 81, 2987-2990, 2000.
- Folland, C.K., Karl, T.R., Christy, J.R., Clarke, R. A., Gruza, G.V., Jouzel, J., **Mann, M.E.**, Oerlemans, J., Salinger, M.J., Wang, S.-W., Observed Climate Variability and Change, in *Climate Change 2001: The Scientific Basis*, Houghton, J.T., et al. (eds.), Cambridge Univ. Press, Cambridge, 99-181, 2001.
- **Mann, M.E.**, Little Ice Age, MacCracken, M.C. & Perry, J.S. (eds) *Encyclopedia of Global Environmental Change*, John Wiley and Sons Ltd, London, UK, pp. 504-509, 2001.
- **Mann, M.E.**, Medieval Climatic Optimum, MacCracken, M.C. & Perry, J.S. (eds) *Encyclopedia of Global Environmental Change*, John Wiley and Sons Ltd, London, UK, pp. 514-516, 2001.
- **Mann, M.E.**, Bradley, R.S., Briffa, K., Cole, J., Hughes, M.K., Jones, J.M., Overpeck, J.T., von Storch, H., Wanner, H., Weber, S.L., Widmann, M., Reconstructing the Climate of the Late Holocene, *Eos*, 82, 553, 2001.
- Bradley, R.S., Briffa, K.R., Crowley, T.J., Hughes, M.K., Jones, P.D, **Mann, M.E.**, Scope of Medieval Warming, *Science*, 292, 2011-2012, 2001.
- **Mann, M.E.**, Hughes, M.K., Tree-Ring Chronologies and Climate Variability, *Science*, 296, 848, 2002.
- **Mann, M.E.**, The Value of Multiple Proxies (invited 'perspective' article), *Science*, 297, 1481-1482, 2002.
- **Mann, M.E.**, Reconstructing Temperature Variations, in *Yearbook of Science & Technology*, McGraw-Hill, New York, pp. 354-358, 2003.
- **Mann, M.E.**, Ammann, C.M., Bradley, R.S., Briffa, K.R., Crowley, T.J., Hughes, M.K., Jones, P.D., Oppenheimer, M., Osborn, T.J., Overpeck, J. T., Rutherford, S., Trenberth, K.E., Wigley, T.M.L., On Past Temperatures and Anomalous Late 20th Century Warmth, *Eos*, 84, 256-258, 2003.
- **Mann, M.E.**, Climate Variability and Change, Last 1000 years, *Encyclopedia of Paleoclimatology and Ancient Environments*, in press, 2003.

Non-reviewed Contributions

- **Mann, M.E.**, Park, J., Globally correlated variability in surface temperatures, *Proceedings of the 6th Conference on Climate Variations*, American Meteorological Society, 297-301, Nashville, TN, January 1994.

- Marshall, S., **Mann, M.E.**, Oglesby, R.J., Saltzman, B., A comparison of the CCM1-simulated climates for pre-industrial and present-day CO₂ levels, *Proceedings of the 6th Conference on Climate Variations*, American Meteorological Society, 12-15, Nashville, TN, January 1994.
- Moon, Y.I., Lall, U., Rajagopalan, B., **Mann, M.E.**, Forecasting hydroclimatic variables using a nonparametric, nonlinear time series model, *Proceedings of the 13th Conference on Probability & Statistics in the Atmospheric Sciences*, American Meteorological Society, San Francisco, CA, February 1996.
- **Mann, M.E.**, Rajagopalan, B., Moon, Y.I., Lall, U., Climatic forecasting based on multivariate frequency and time domain-based predictions, *Proceedings of the 13th Conference on Probability & Statistics in the Atmospheric Sciences*, American Meteorological Society, San Francisco, CA, February 1996.
- **Mann, M.E.**, Bradley, R.S., Hughes, M.K., Large-Scale Climatic Reconstructions Based on High-Resolution Multi-Proxy Data, *Proceedings of the Eighth symposium on Global Change Studies*, Long Beach, CA, February 1997.
- Rajagopalan, B., **Mann, M.E.**, Lall, U., Climatic forecasting based on multivariate frequency and time domain-based prediction, *Proceedings of the Eighth Symposium on Global Change Studies*, Long Beach, CA, February 1997.
- **Mann, M.E.**, Bradley, R.S., Hughes, M.K., Multiproxy based reconstructions of large-scale surface temperature patterns during the past several centuries, *Proceedings of the Ninth Symposium on Global Change Studies*, Phoenix, AZ, January 1998.
- **Mann, M.E.**, *A Study of Ocean-Atmosphere Interaction and Low Frequency Variability of the Climate System*, PhD Thesis, 283pp, Yale University, New Haven, CT, 1998.
- **Mann, M.E.**, On Reconstructing Past Centuries' Temperatures, *World Climate Report*, 3, 26, 6-7, 1998.
- **Mann, M.E.**, Bradley, R.S., Global Climate Variations over the Past 250 Years: Relationships With the Middle East, *Transformations of Middle Eastern Natural Environments: Legacies and Lessons*, Yale School of Forestry and Environmental Studies Bulletin Series, 103, 429-443, 1998.
- M.K.Hughes, **Mann, M.E.**, Bradley, R.S., Climate variability of the last 1000 years from annual-resolution natural archives. *Proceedings of CCV99, International Conference on Climate Change and Variability*, Tokyo Metropolitan University, September 1999.
- M.K.Hughes, **Mann, M.E.**, Bradley, R.S., 1000 years of Northern Hemisphere temperature from natural archives. *Abstracts of PAGES Workshop on South Asian Paleoenvironments, Pune, India, February 4-5*, pp 11-15, 2000.
- Jones, P.D., Briffa, K.R., Osborn, T.J., **Mann, M.E.**, Bradley, R.S., Hughes, M.K., Cover Figure for World Meteorological Organization (WMO) 50th Year Anniversary Publication: *Temperature changes over the last Millennium*, 2000.
- **Mann, M.E.**, Bradley, R.S., Hughes, M.K., Large-Scale Surface Temperature Changes During the Past Millennium, *Abstracts of AMQUA annual meeting*, Fayetteville, Arkansas, May 22-24, pp 17-12, 2000.

Invited Lectures & Workshops

- Invited lecture, Dept. of Chemistry, University of Utah, July 14, 1989
- Invited lecture, Geology Dept., Brown University, Providence, Rhode Island, March 10, 1993
- Invited lecture, United States Geological Survey, *USGS Global Change seminar series*, Reston Virginia, April 12, 1993
- Invited participant, *Application of Statistics to Modeling the Earth's Climate System*, National Center for Atmospheric Research, Boulder, Colorado. July 6-19, 1994
- Invited presentation, *Links between Variations in Solar Activity, Atmospheric Conductivity, and Clouds: An Informal Workshop*, Los Alamos National Laboratory, Los Alamos, New Mexico, June 20-21, 1996
- Invited lecture, Department of Physics, University of Bern, Bern Switzerland, Oct 26, 1996

- Invited lecture, Lamont Doherty Earth Observatory, Columbia University, December 4, 1996
- Invited presentation, *SST reconstruction from Proxy data and Optimal Network Design Strategy For Corals and other Annual Records from Tropical Systems (ARTS)* , Lamont Doherty Earth Observatory, Columbia University, Jan 15-16, 1997
- Invited lecture, Department of Atmospheric Sciences, University of California Los Angeles, Feb 14, 1997
- Invited lecture, Geophysical Fluid Dynamics Laboratory, Princeton University, Princeton, New Jersey, March 4, 1997
- Invited presentation, *The Cross-Validation of Proxy Climate Data and the Instrumental Record*, Joint Institute for the Study of Atmosphere and Ocean, University of Washington, Seattle, June 23-25, 1997
- Invited lecture, Hadley Centre of the United Kingdom Meteorological office, Bracknell, UK, Oct 14, 1997
- Invited talk, conference on *Transformations of Middle Eastern Natural Environments: Legacies and Lessons*, Council on Middle East Studies, Yale Center for International and Area Studies, Yale University, New Haven, Oct 30-Nov 1, 1997
- Invited lecture, Geology Department, West Virginia University, Morgantown, West Virginia, Nov 14, 1997
- Invited lecture, Oceanography Department, Texas A&M university, College Station, Texas, Dec 4, 1997
- Invited lecture, Graduate School of Oceanography, University of Rhode Island, Narragansett, Rhode Island, March 6, 1998
- Invited lecture, NOAA-CDC/ERL/CIRES, Boulder, Colorado, May 13, 1998
- Invited presentation, *AGU Spring meeting: "Low-frequency Variations in Midwestern U.S Precipitation: Diagnosing ENSO and Anthropogenic effects"*, Boston, MA, May 1998
- Invited presentation, *US Global Change Research Program Seminar Series*, Dirksen Senate Office Building, Capitol Hill, Washington DC, July 20, 1998
- Invited presentation, *NASA workshop on Decadal Climate Variability*, Williamsburg, VA, Sep 22-25, 1998
- Invited lecture, Department of Mathematics & Statistics, University of Massachusetts, Amherst, MA, Nov 2, 1998.
- Invited lecture, School of Marine and Atmospheric Science, University of Miami, Coral Gables, FL, Nov 13, 1998.
- Invited lecture, Department of Environmental Sciences, University of Virginia, Charlottesville, VA, Feb 18, 1999.
- Invited lecture, Physical Oceanography Seminar Series, Woods Hole Oceanographic Institute, Woods Hole, MA, March 2, 1999.
- Invited presentation, *US Global Change Research Program Seminar Series*, Dirksen Senate Office Building, Capitol Hill, Washington DC, May 17, 1999.
- Invited lecture, Colloquium on Regional Modeling and Detection, International Center for Theoretical Physics (ICTP), Trieste, Italy, June 9, 1999.
- Invited lecture, NASA Goddard Institute for Space Studies, New York, NY, October 15, 1999.
- Invited lecture, Geophysical Fluid Dynamics Laboratory, Princeton, NJ, October 21, 1999.
- Invited participant and speaker, *PAGES/CLIVAR workshop on Climate of the Last Millennium*, Venice Italy, November 8 - 12, 1999
- Invited guest introductions, *US Global Change Research Program Seminar Series*, Dirksen Senate Office Building, Capitol Hill, Washington DC, November 23, 1999.
- Invited participant and speaker, workshop on *El Niño: Past Present and Future*, Seabrook Island South Carolina, Feb 28-Mar 2, 2000.
- Invited public lecture, Smithsonian Environmental Research Center (SERC), Edgewater Maryland, March 15, 2000.

- Invited presentation, *EGS Spring meeting*: “Seasonal Proxy-Reconstructed Surface Temperature Patterns in Past Centuries”, Nice, France, April 22, 2000
- Invited presentation, AMQUA annual meeting, Fayetteville Arkansas, May 22, 2000.
- Invited presentation, 5th *EPA NHEERL symposium on Indicators in Health and Ecological Risk Assessment*, June 7, 2000.
- Invited presentation, *CLIVAR Decadal Climate Predictability Workshop*, La Jolla, California, October 4, 2000.
- Invited presentation, *AGU Fall meeting*: “Use of Proxy Climate Data in Climate Change Detection”, San Francisco, CA, Dec 16, 2000.
- Invited presentation, *NASA/CLIVAR/IPRC workshop on Decadal Climate Variability*, Honolulu, Hawaii, January 8, 2001.
- Invited lecture, Turner Lecture Series, Department of Geological Sciences, University of Michigan, Ann Arbor, MI, March 16, 2001.
- Invited presentation, *EGS Spring meeting*: “Comparison of Large-Scale Proxy-Based Temperature Reconstructions over the Past Few Centuries” (co-authors: S. Rutherford, T. Osborn), Nice, France, March 29, 2001.
- Invited lecture, Courant Institute, New York University, New York, NY, April 4, 2001.
- Invited presentation, *Global Change Open Science Conference*: “Variability in El Nino and the Global ENSO Phenomenon in Past Centuries”, Amsterdam, Netherlands, July 11, 2001.
- Invited lecture, DCESS, University of Copenhagen, Copenhagen, Denmark, August 13, 2001.
- Invited lecture, *Richard Foster Flint Symposium Honoring the Memory of Barry Saltzman*, November 3, 2001.
- Session introduction, Invited session on "Climate Change Detection/Attribution", National Academy of Sciences *Frontiers of Science* annual symposium, Irvine, California, Nov 9, 2001.
- Invited lecture, Department of Earth & Ocean Sciences, Duke University, Nov 29, 2001.
- Invited presentation, *AGU Fall meeting*: “Climate Reconstruction using Pseudoproxies”, San Francisco, CA, December 11, 2001.
- Invited lecture, Department of Geology, University of North Carolina, Jan 18, 2002.
- Invited lecture, Department of Geological Sciences, University of Colorado, Jan 25, 2002.
- Invited lecture, INSTAAR, University of Colorado, Jan 28, 2002.
- Invited lecture, Center for Coastal Physical Oceanography (CCPO), Old Dominion University, Feb 18, 2002.
- Invited lecture, College of Marine Science, University of South Florida, Mar 8, 2002.
- Invited participant, Waxter Environmental Forum, Sweet Briar College, March 14, 2002.
- Invited presentation, *EGS Spring meeting*: “Climate Change and Forcing over the Past 500 years” (co-authors: S. Rutherford, R. Bradley, M. Hughes), Nice, France, April 23, 2002.
- Invited lecture, University of Copenhagen, Copenhagen, Denmark, June 11, 2002.
- Invited presentation, Chapman conference on *Volcanism and the Earth's Atmosphere*, Santorini Greece, June 20, 2002.
- Invited lecture, Goddard Institute for Space Studies, New York, NY, October 10, 2002.
- Invited lecture, Geophysical Fluid Dynamics Laboratory, Princeton, NJ, October, 17, 2002.
- Invited presentation (co-authors G. Schmidt, D. Shindell), *AGU Fall meeting*: “Climate Changes during the Past Millennium”, San Francisco, CA, Dec 8, 2002.
- 'Vetlesen' distinguished lecturer, Graduate School of Oceanography, University of Rhode Island, Narragansett, Rhode Island, March 5, 2003.
- Invited presentation, *AGU/EGS Joint Spring meeting*: “Ground vs. Surface Temperature Trends: Implications for Borehole Surface Temperature Reconstructions” (co-author: G. Schmidt), Nice, France, April 10, 2003.

Abstracts

- Wille, L.T., **Mann, M.E.**, Burmester, C.P., and de Fontaine, D., Oxygen Ordering in YBa₂Cu₃O_z, *Proceedings of the Materials Research Society*, 1988.
- **Mann, M.E.**, Park, J., Spatial correlation of interdecadal temperature variations, AGU Fall meeting, San Francisco, CA, December 1992.
- Marshall, S., **Mann, M.E.**, Oglesby, R.J., Saltzman, Barry, A comparison of the CCM1-simulated climates for pre-industrial and present-day CO₂ levels, AGU Fall meeting, San Francisco, CA, December, 1993.
- Lall, U., **Mann, M.E.**, Low frequency climate variability: Inferences from the Great Salt Lake, AGU Fall Meeting, San Francisco, CA, December, 1993.
- Lall, U., **Mann, M.E.**, The Ups and Downs of the Great Salt Lake: Relation to Long term climatic variability, *Meeting of the Utah Academy of Arts and Sciences*, Salt Lake City, UT, 1994.
- **Mann, M.E.**, Lall, U., Low frequency climate variability and the Great Salt Lake, *Annual meeting of the Geological Society of America*, Abstracts with programs, Vol. 26, No. 7, p. 229, Seattle, WA, October 1994.
- **Mann, M.E.**, Park, J., Bradley, R., Global modes of decadal-to-century scale climate variability: the application of evolutive SVD spectral analysis to globally distributed high resolution temperature proxy records, AGU Fall meeting, San Francisco, CA, December, 1994.
- Bradley, R., **Mann, M.E.**, Park, J., A spatiotemporal analysis of ENSO variability based on globally distributed instrumental and proxy temperature data, AGU Fall meeting, San Francisco, CA, December, 1994.
- Koch, D., **Mann, M.E.**, Spatial and temporal variability of ⁷Be surface concentration, AGU Fall meeting, San Francisco, CA, December 1994.
- Park, J., **Mann, M.E.**, Lilly, J., Spatial Patterns of Historical Temperature Variability: Global Correlations using Spectral and Wavelet Techniques, *AAAS meeting*, Atlanta, GA, February, 1995.
- **Mann, M.E.**, Lall, U., Extremes of the Great Salt Lake and quasiperiodic modes of climate variability, *Annales Geophysicae, Supplement II*, EGS, 13, 1995.
- Lall, U., Saltzman, B., **Mann, M.E.**, How does the Great Salt Lake "see" low frequency climate signals? *Annales Geophysicae, Supplement II*, EGS, 13, 1995.
- **Mann, M.E.**, Lees, J., Signal detection in climate time series: robust red-noise confidence level determination in multitaper spectral analysis, AGU Spring meeting, Baltimore MD, May 1995.
- **Mann, M.E.**, Bradley, R., Spatio-temporal patterns of interdecadal and century-scale climate oscillations during the last half millenium, IUGG meeting, Boulder, CO, July 1995.
- **Mann, M.E.**, Park, J., Joint spatio-temporal modes of surface temperature and sea level pressure variability in the northern hemisphere during the last century, IUGG meeting, Boulder, CO, July 1995.
- **Mann, M.E.**, Rajagopalan, B., Moon, Y.I., Lall, U., Forecasting multivariate climate timeseries: adaptive, space-time filtering and nonlinear prediction, *Annales Geophysicae, Supplement II*, EGS, 14, Hamburg, Germany, April 1996.
- Lall, U., Rajagopalan, B., Moon, Y.I., **Mann, M.E.**, Forecasting nonlinear time series: locally weighted polynomials with local parameter choice and local error estimate, *Annales Geophysicae, Supplement II*, EGS, 14, Hamburg, Germany, April 1996.
- **Mann, M.E.**, Spatiotemporal Modes of Low-Frequency Climatic Variability: Observation vs. Simplified Coupled Ocean-Atmosphere Model Simulations, AGU Spring meeting, May, 1996.
- Jain, S., Lall, U., **Mann, M.E.**, Trends in century long records of N. hemisphere equator-to-pole temperature gradient and land-ocean temperature contrast, *GEWEX Second International Conference on Global Energy and Water Cycle*, Washington, D.C., June 1996.
- **Mann, M.E.**, Bradley, R.S., The detection of spatiotemporal signals in long-term proxy climate data: prospects for improved climate model validation, *Workshop on High Resolution Climate Modeling*, Wengen, Switzerland, September 23-26, 1996.
- **Mann, M.E.**, A comparison of Observed and Modeled Climate Variability on Interdecadal and Century Timescales, AGU Fall meeting, San Francisco, CA December 1996.

- Jain, S., Lall, U., **Mann, M.E.**, Trends in N. Hemisphere Surface Temperature Gradients (Equator-to-Pole and Land-Ocean Contrast): Volcanic Effects and Secular Variations, AGU Fall meeting, San Francisco, CA, December 1996.
- **Mann, M.E.**, Multi-Proxy based reconstructions of large-scale surface temperature patterns during the past several centuries, AGU Spring meeting, Baltimore MD, May 1997.
- **Mann, M.E.**, Bradley, R.S., Hughes, M.K., Northern Hemisphere Temperature During the Past Half-Millennium: Implications for External Forcing and Natural Variability of the Climate, AGU Fall meeting, San Francisco, CA, December, 1997.
- Park, J, **Mann, M.E.**, ENSO Episodes and Shifts in Global Temperature: A Wavelet Correlation Approach, AGU Fall meeting, San Francisco, CA, December 1997.
- Jain, S., Lall, U., **Mann, M.E.**, Rajagopalan, B., Changes in the Midwestern U.S. Precipitation: Observations and Modeled Greenhouse Warming Scenarios, *7th International Meeting on Statistical Climatology*, Whistler, BC, May, 1998.
- Jain, S., Lall, U., **Mann, M.**, Rajagopalan, B., Interannual to Secular Trends in Midwestern Precipitation: Insights on Greenhouse Gas and ENSO Forcing from a Coupled Ocean-Atmosphere Model, *GCIP* conference, St Louis, Mississippi, June, 1998.
- Lall, U., Rajagopalan, B., **Mann, M.**, Cook, E., Explaining Upper Mississippi River Droughts and Wet Spells in Terms of Hemispheric Changes in Atmospheric Circulation, *GCIP* conference, St Louis, Mississippi, June, 1998.
- Waple, A.M., **Mann, M.E.**, Bradley, R.S., Proxy and Model-Based Analysis of Patterns of Temperature Associated with Solar Irradiance From 1650 to 1850, AGU Fall meeting, San Francisco, CA, December, 1998.
- **Mann, M.E.**, Northern Hemisphere temperatures during the past millennium, *Annales Geophysicae, Supplement II*, EGS, 17, Den Haag, Netherlands, April 1999.
- Folland, C.K., Allan, R.J., **Mann, M.E.**, Power, S.B., Patterns of large-scale climatic variability in the instrumental era, *IUGG* annual meeting, Birmingham, UK, July, 1999.
- D'Arrigo, R., Cook, E., Cullen, H., **Mann, M.E.**, Reconstructions of North Atlantic Oscillation Indices, *IUGG* annual meeting, Birmingham, UK, July, 1999.
- Waple, A.M., **Mann, M.E.**, Bradley, R.S., Proxy and model-based analysis of patterns of temperature associated with solar irradiance over the last several centuries, *IUGG* annual meeting, Birmingham, UK July, 1999.
- Ammann, C.M., **Mann, M.E.**, Bradley, R.S., Explosive Volcanism and ENSO: Search for a Relationship in a Multi-century Global Climate Reconstruction, AGU Fall meeting, San Francisco, CA, December, 1999.
- **Mann, M.E.**, Variability in El Niño And the Global ENSO Phenomenon in Past Centuries, AGU Fall meeting, San Francisco, CA, December, 1999.
- Rittenour, T.M., Brigham-Grette, J., **Mann, M.E.**, El Niño-like Climate Teleconnections in New England During the Late Pleistocene: Insights from a 4000-year Glacial Varve Chronology, AGU Fall meeting, San Francisco, CA, December, 1999.
- Rutherford, C.M., **Mann, M.E.**, Schneider, T., Delworth, T., Stouffer, R., Climate Field Reconstruction Under Stationary and Non-Stationary Forcing, AGU Fall meeting, San Francisco, CA, December, 2000.
- Brigham-Grette, J., Rittenour, T.M., **Mann, M.E.**, Drainage history of glacial Lake Hitchcock and Paleoclimate Implications of Late Quaternary Sediments and Terraces in the Central Connecticut Valley, New England, GSA Northeastern Section, 36th Annual Meeting, Burlington, VT, March 12, 2001.
- Cook, E.R., D'Arrigo, R.D., **Mann, M.E.**, A well-verified multiproxy reconstruction of the winter North Atlantic Oscillation index Since AD 1400, U.S CLIVAR Atlantic meeting, Boulder, CO, June 14, 2001
- Druckenbrod, D.L., **Mann, M.E.**, Stahle, D.W., Cleaveland, M.K., Therrell, M.D., Shugard, H.H., James Madison and a Shift in Precipitation Seasonality, AGU Fall meeting, San Francisco, CA, December, 2001.

- Shindell, D., Schmidt, G., **Mann, M.**, Rind, D., Waple, A., Long-term Solar Forcing of the Arctic Oscillation/North Atlantic Oscillation, AGU Fall meeting, San Francisco, CA, December, 2001.
- Shindell, D.T., Schmidt, G.A., **Mann, M.E.**, Rind, D., Waple, A., Miller, R., Solar and Volcanic Forcing of Climate Change during the Maunder Minimum, AGU Spring meeting, Washington, DC, May 2002.
- Rutherford, S., **Mann, M.E.**, Proxy-Based Reconstructions of Surface Temperature Patterns During the Maunder Minimum, AGU Spring meeting, Washington, DC, May 2002.
- Adams, B., Ammann, C.M., **Mann, M.E.**, Using Paleoclimatic Reconstructions of ENSO Variability During the Past Few Centuries to Re-Examine the 'Volcano-ENSO' Hypothesis, AGU Fall meeting, San Francisco, CA, December, 2002.
- Cook, B.I., **Mann, M.E.**, Smith, T., A Statistical Resampling Technique for Conditioning Simulated Daily European Surface Temperatures on the North Atlantic Oscillation Index, AGU Fall meeting, San Francisco, CA, December, 2002.
- Rutherford, S., **Mann, M.E.**, Bradley, R., Briffa, K., Hughes, M., Jones, P., Osborn, T., Proxy-Based Reconstruction of Surface Temperature Variations in Past Centuries, AGU Fall meeting, San Francisco, CA, December, 2002.
- Zhang, Z., **Mann, M.E.**, Cook, E.R., A Revised Set of Dendroclimatic Reconstructions of Summer Drought over the Conterminous U.S., AGU Fall meeting, San Francisco, CA, December, 2002.
- Shindell, D.T., Schmidt, G.A., Miller, R., **Mann, M.E.**, Volcanic and Solar Forcing of Global and Regional Climate During the Preindustrial Era", AGU/EGS Joint Spring meeting, Nice, France, April 2003.
- D'Arrigo, R.D., Cook, E.R., **Mann, M.E.**, Jacoby, G.C., Tree-ring Reconstructions of Arctic Oscillation Indices Since AD 1650, ARCUS 15th Annual Meeting And Arctic Forum, Arlington, VA, April 2003.
- **Mann, M.E.**, Rutherford, S., Jones, P.D., Schmidt, G.A., Shindell, D., Climate changes during the past millennium, IUGG Meeting, Sapporo, Japan, July, 2003.