

CURRICULUM VITAE

May 8, 2012

Michael James McPhaden

NOAA/Pacific Marine Environmental Laboratory
7600 Sand Point Way NE
Seattle, Washington 98115
P: 206-526-6783; F: 206-526-6744
E-mail: Michael.J.Mcphaden@noaa.gov

PROFESSIONAL EXPERIENCE

1998–present Senior Scientist
Pacific Marine Environmental Laboratory, Seattle, Washington

1993–present Affiliate Professor, School of Oceanography, University of Washington

1992–present Director, TAO Project Office
Pacific Marine Environmental Laboratory, Seattle, Washington

1992–1998 Supervisory Oceanographer GM-15, Pacific Marine Environmental Laboratory,
Seattle, Washington

1991–1992 Oceanographer, GS-15, Pacific Marine Environmental Laboratory, Seattle,
Washington

1990–present Senior Fellow, Joint Institute for the Study of the Atmosphere and Ocean,
University of Washington

1990–1993 Affiliate Associate Professor, School of Oceanography, University of
Washington

1988–1990 Affiliate Assistant Professor, School of Oceanography, University of Washington

1987–present Senior Fellow, Joint Institute for Marine and Atmospheric Research, University
of Hawaii

1986–1991 Oceanographer GS-14, Pacific Marine Environmental Laboratory, Seattle,
Washington

1984–1986 Research Assistant Professor, School of Oceanography, University of
Washington

1982–1984 Visiting Research Scientist, Joint Institute for the Study of the Atmosphere and
Ocean, University of Washington

1980–1982 Research Scientist, Oceanography Section, National Center for Atmospheric
Research

EDUCATION

1980 Scripps Institution of Oceanography, Ph.D., Physical Oceanography: Dissertation title:
“Models of the Equatorial Ocean Circulation”

1973 State University of New York at Buffalo, B.S., Physics, magna cum laude

HONORS AND AWARDS

Priestley Lecture, Commonwealth Scientific and Industrial Research Organisation, Australia, 2012

Fridtjof Nansen Medal, European Geosciences Union, 2010

Fellow, American Meteorological Society, 2007

Guest Professor, Ocean University of China, 2006

Fellow, the Oceanography Society, 2005

Scientific American “Science & Technology Web Awards” for El Niño Theme Page, 2005

Presidential Rank Award for Meritorious Federal Service, 2004

Listed in Thomson ISI Highly Cited Researchers in Geosciences, 2004

Grace Hopper Government Technology Award (“Gracie Award”), given to the TAO project for Leadership in the Innovative Application of Information Technology, 2003
American Geophysical Union, Frontiers of Geophysics Lecturer, 2002 Western Pacific Geophysics Meeting
American Meteorological Society, Walter Orr Roberts Lecturer, 2002
American Meteorological Society, Special Award for Completing and Maintaining the TAO Array, 1999
Public Service Award, Federal Executive Board, Seattle, 1999
American Geophysical Union, Sverdrup Lecturer, Fall 1998 Meeting
Department of Commerce, Gold Medal, 1997
Editor’s Citation for Excellence in Refereeing, *Journal of Geophysical Research*, 1995
NOAA/OAR Outstanding Publication Award, 1999, 2000, 2002, 2004
NOAA/PMEL Outstanding Publication Award, 1989–1993, 1995, 1997, 1998, 2007
Who’s Who in America
Who’s Who in Science and Engineering
Who’s Who in the World
Who’s Who in the West
Phi Beta Kappa

PROFESSIONAL SOCIETIES

Marine Technology Society/IEEE, 1990
The Oceanography Society, 1988–present
American Geophysical Union, 1979–present
The American Meteorological Society, 1978–present
The European Geosciences Union, 2005–present

PROFESSIONAL SERVICE ACTIVITIES

President, American Geophysical Union, 2010-2012
President-elect, American Geophysical Union, 2008-2010
Member, Review Committee, University of Maryland Department of Atmospheric and Oceanic Science, 2011
Member, IUGG Nominations Committee, 2010-2011
Member, National Academy of Science Advisory Panel on National Security Implications of Climate Change for U.S. Naval Forces, 2009-11
Member, MIT/WHOI Joint Program Review Committee, 2009
Member, RAPID-WATCH Program Advisory Committee, 2008-present
Contributing author, IPCC Fourth Assessment Report, 2007
Convener, IUGG Symposium on Interannual to Interdecadal Climate Variability, 2007
Member, RAPID (Rapid Climate Change) Review Committee, February 2007
Member, Review Committee, Cooperative Institute for Climate and Ocean Research (CICOR), June 2005
President, Ocean Sciences Section, American Geophysical Union, 2002–2004
Member, Executive Committee, AGU Ocean Sciences Section, 2000–2008
Member, IOC/WMO Joint Commission on Oceanography and Marine Meteorology, observations Coordination Group, 2001–present
Member, International CLIVAR Global Synthesis and Observations Panel, 2004–present
Member, International CLIVAR Indian Ocean Panel, 2003–present
Member, International CLIVAR Pacific Ocean Panel, 2001–present
Chairman, Tropical Moored Buoy Implementation Panel, 2001–present
Member, International CLIVAR/OOPC OceanSITES Working Group, 2000–present

Editorial Board, Bulletin of the American Meteorological Society, 2001–present
 Member, PIRATA Steering Group, 1995–present
 Member, International CLIVAR Ocean Observations Panel, 2000–2003
 Member, OCEANOBS99 Conference Steering Committee, 1999
 Member, AMS Committee on the Interaction of the Sea and the Atmosphere, 1999–2002
 Member, O-CLIVAR Steering Group, 1996–1997
 Member, Nominations Committee, The Oceanography Society, 1994–1996
 Chairman, Pan American Climate Studies Subcommittee on Observations, 1994–1996
 Member, Organizing Committee, Final TOGA Conference, 1994–1995
 Chairman, TAO Implementation Panel, 1992–2001
 Member, Ocean Observing System Development Panel, 1992–1994
 Member, International TOGA Scientific Steering Group, 1992–1994
 Member, National Academy of Science Advisory Panel on Near-term Development of Operational Ocean Observations, 1991–1993
 Member, WCRP Pacific Panel, 1990–1994
 Member, International TOGA Scientific Steering Group Ad Hoc Committee on Moored current Measurements, 1989
 Member, WOCE Moored Measurements Implementation Panel, 1988–1991
 Member, EPOCS Council, 1987–1994
 Convener, The ENSO Event of 1986–1987 Fall AGU, San Francisco, 1987
 Member, US/PRC bilateral air-sea interaction planning committee, 1986–1992
 Member, WOCE Committee on Surface Layer Observations, 1986–1988
 Convener, Equatorial Undercurrent Centennial Conference, Fall AGU, San Francisco, 1986
 Co-Convener, Second International TOGA Workshop on Thermal Sampling, Hobart, Australia, November 1986
 Convener, TOGA Thermal Data Center Workshop, Monterey, California, July 1985
 Consultant, CCCO Pacific, Atlantic, and Indian Ocean Panels, 1984–1990
 Co-Chairman, Pacific Subsurface Thermal Field Monitoring Steering Group 1984–1987
 Member, U.S. Delegation to India, Indo-U.S. bilateral on monsoon variability, Bangalore, India, 1984
 Co-Convener, Pacific Subsurface Thermal Field Monitoring Workshop, Seattle, 1984
 Member, TOGA Pacific Drafting Workshop, Miami, 1983
 Convener, Special Ocean/Atmospheric Sciences session on El Niño 1982–1983, Fall AGU Meeting, San Francisco, 1983
 Member, Navy/NOAA Committee on Observational Strategies for Ocean Monitoring, Miami, 1983
 Consultant, FOCAL/SEQUAL Programs, 1982–1986
 Member, Tropic Heat Experiment Executive Committee, 1981–1982
 Consultant, CAGE Feasibility Study Committee, 1981–1982
 Member, Equatorial Theoretical Panel, 1978–1984

STUDENT RESEARCH SUPPORT

Jacob Wenegrat	2010-present
Natalia Stephanova	2005–2008
Xuebin Zhang	2002–2007
Weimin Wang	1994–2000
Xuri Yu	1991–1999
Rusty Brainard	1991–1994
Ken Duvall	1987
Scott Springer	1986–1989
Mary Landsteiner	1985–1987
Jeff Proehl	1984–1988

STUDENT COMMITTEES

University of Washington

Jacob Wenegrat, Ph.D (Chairman)
Natalia Stephanova, Ph.D. (Chairman)
Xuebin Zhang, Ph.D. (Chairman)
Weimin Wang, Ph.D. (Chairman)
Xuri Yu, Ph.D. (Chairman)
Scott Springer, M.S. (Chairman), Ph.D.
Mary Landsteiner, M.S. (Chairman)
Jeff Proehl, Ph.D. (Chairman)
Chuanli Jiang, Ph.D.
Joanna Meunch, Ph.D.
Keith Brainard, Ph.D.
David Battisti, Ph.D.
William Kessler, Ph.D.

Naval Postgraduate School

Rusty Brainard, Ph.D.

University of Paris - VI

Lucia Bunge, Ph.D.
Christophe Menkes, Ph.D.

University of Toulouse - III

Christelle Bosc, Ph.D.
Takeshi Izumo, Ph.D.
Sophie Cravatte, Ph.D.

University of Maryland

Gregory Foltz, Ph.D.

Macquarie University

Shayne McGregor, PhD

POSTDOC SUPPORT AND SUPERVISION

Joke Luebbecke	2011-present
Iskhaq Iskandar	2009-present
Motoki Nagura	2008-2010
Xuebin Zhang	2008
Regina Rodrigues	2005–2007
Greg Foltz	2003–2006
Dongxiao Zhang	1999–2001
Weimin Wang	2000
Xuri Yu	1999
Chris Meinen	1998–2000
Kenong Bi	1995–1996
Meghan Cronin	1993–1995
Janet Sprintall	1992–1993
Eric Johnson	1990–1992

OCEANOGRAPHIC RESEARCH CRUISES

RV *Fridtjof Nansen*, 18-27 November 2008, Mahe, Seychelles to Pemba, Mozambique.

NOAA Ship *Ka'imimoana*, 10-23 September 2006, Nuku Hiva, French Polynesia to Honolulu, Hawaii (Chief Scientist)

NOAA Ship *Ka'imimoana*, 5-27 April 2005, San Diego, CA to Galapagos Islands, Ecuador
NOAA Ship *Ka'imimoana*, 1-23 March 2002, Honolulu, HI to Galapagos Islands, Ecuador (Chief Scientist)
NOAA Ship *Ka'imimoana*, 27 September-15 October 1997, San Diego, CA to Nuku Hiva, French Polynesia (Chief Scientist)
RV *Le Noroit*, 2-18 February 1992, Kwajalein, Marshall Islands to Noumea, New Caledonia
RV *Le Noroit*, 26 March-4 April 1991, Kwajalein, Marshall Islands to Noumea, New Caledonia
NOAA Ship *Malcolm Baldrige*, 20 April-22 May 1990, Honolulu, HI to Rodman, Panama (Chief Scientist)
Xiangyanghong #14, 12-28 October 1987, Pohnpei, Micronesia to Republic of Nauru
NOAA Ship *Oceanographer*, 17 October-10 November 1986, Seattle, WA to Manzanillo, Mexico (Chief Scientist)
RV *Marion Dufresne*, May-July 1983, Dakar, Senegal to La Reunion.

REFEREED PUBLICATIONS

- Foltz, G.R., M.J. McPhaden, and R. Lumpkin, 2012: A strong Atlantic Meridional Mode event in 2009: The role of mixed layer dynamics. *J. Climate*, 25, 363-380, doi:10.1175/JCLI-D-11-00150.1.
- Gierach, M. M, T. Lee, D. Turk, and M. J. McPhaden, 2012: Biological Response to the 1997-98 and 2009-10 El Niño events in the Equatorial Pacific Ocean. *Geophys. Res. Lett.*, in press.
- Kumar, B.P., J. Vialard, M. Lengaigne, V.S.N. Murty, M.J. McPhaden, 2012: TropFlux: Air-Sea Fluxes for the Global Tropical Oceans – Description and evaluation. *Clim. Dyn.*, 38, 1521-1543.
- McPhaden, M. J., 2012: A 21st Century Shift in the Relationship between ENSO SST and Warm Water Volume Anomalies. *Geophys. Res. Lett.*, 39, L09706, doi:10.1029/2012GL051826.
- Morrissey, M. L., H. J. Diamond, M. J. McPhaden, H. P. Freitag, and J. S. Greene, 2012: An Investigation of the Consistency of TAO/TRITON Buoy-mounted Capacitance Rain Gauges. *J. Atmos. Ocean. Tech.*, in press.
- Nagura, M., and M. J. McPhaden, 2012: The dynamics of wind-driven intraseasonal variability in the equatorial Indian Ocean, *J. Geophys. Res.*, 115, C07009, doi:10.1029/2011JC007405.
- Wu, L., W. Cai, L. Zhang, H. Nakamura, A. Timmermann, T. Joyce, M. J. McPhaden, M. Alexander, B. Qiu, M. Visbeck, P. Chang, and B. Giese, 2012: Enhanced Warming over the Global Subtropical Western Boundary Currents. *Nature Climate Change*, 2, 161–166, doi: 10.1038/NCLIMATE1353.
- Delcroix T., G. Alory, S. Cravatte, T. Corrège, and M. J. McPhaden, 2011: A gridded sea surface salinity data set for the tropical Pacific with sample applications (1950-2008). *Deep-Sea Res. Part I*, 58, 38-48.
- Girishkumar, M. S., M. Ravichandran, M. J. McPhaden, and R. R. Rao, 2011: Intraseasonal variability in barrier layer thickness in the south central Bay of Bengal, *J. Geophys. Res.*, 116, C03009, doi:10.1029/2010JC006657.

- Iskandar, I., and M. J. McPhaden, 2011: Dynamics of wind-forced intraseasonal zonal current variations in the equatorial Indian Ocean, *J. Geophys. Res.*, *116*, C06019, doi:10.1029/2010JC006864.
- Luebbecke, J. and M. J. McPhaden, 2011: On the inconsistent relationship between Atlantic and Pacific Niños. *J. Climate*, in press.
- McPhaden, M. J., T. Lee, and D. McClurg, 2011: El Niño and its relationship to changing background conditions in the tropical Pacific. *Geophys. Res. Lett.*, *38*, L15709, doi:10.1029/2011GL048275.
- Turk, D., C. S. Meinen, D. Antoine, M. J. McPhaden, and M. R. Lewis, 2011: Implications of changing El Niño patterns for biological dynamics in the equatorial Pacific Ocean. *Geophys. Res. Lett.*, *38*, L23603, doi: 10.1029/2011GL049674.
- Yu, L. and M. J. McPhaden, 2011: Ocean pre-conditioning of Cyclone Nargis in the Bay of Bengal: Interaction between Rossby waves, surface fresh waters, and sea surface temperatures. *J. Phys. Oceanogr.*, *41*, 1741-1755.
- Zhang, D., R. Msadek, M. J. McPhaden, and T. Delworth, 2011: Multidecadal variability of the North Brazil Current and its connection to the Atlantic Meridional Overturning Circulation. *J. Geophys. Res.*, *116*, C04012, doi:10.1029/2010JC006812.
- Balmaseda, M.A., Y. Fujii, O. Alves, T. Lee, M. Rienecker, T. Rosati, D. Stammer, Y. Xue, H. Freeland, M.J. McPhaden, L. Goddard, and C. Coelho, 2010: Role of the Ocean Observing System in an end-to-end seasonal forecasting system. In *Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 1)*, Venice, Italy, 21–25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., ESA Publication WPP-306.
- Bingham, F., G. R. Foltz, and M. J. McPhaden, 2010: Seasonal Cycles of Surface Layer Salinity in the Pacific Ocean. *Ocean Sci.*, *6*, 775-787.
- Chang, Y.-T., T. Yung Tang, S.-Y. Chao, M.-H. Chang, D. S. Ko, Y. J. Yang, W.-D. Liang, and M. J. McPhaden, 2010: Mooring observations and numerical modeling of thermal structures in the South China Sea, *J. Geophys. Res.*, *115*, C10022, doi:10.1029/2010JC006293.
- Feng, M., M. J. McPhaden, and T. Lee, 2010: Decadal variability of the Pacific subtropical cells and their influence on the southeast Indian Ocean. *Geophys. Res. Lett.*, *37*, L09606, doi:10.1029/2010GL042796.
- Foltz, G. R., and M. J. McPhaden, 2010: Abrupt equatorial wave-induced cooling of the Atlantic cold tongue in 2009. *Geophys. Res. Lett.*, *37*, L24605, doi:10.1029/2010GL045522.
- Foltz, G. R., and M. J. McPhaden, 2010: Interaction between the Atlantic meridional and Niño modes. *Geophys. Res. Lett.*, L18604, doi:10.1029/2010GL044001.
- Foltz, G. R., J. Vialard, P. Kumar, and M. J. McPhaden, 2010: Seasonal mixed layer heat balance of the southwestern tropical Indian Ocean. *J. Climate*, *23*, 947-965.

- Gulev, S.K., S.A. Josey, M. Bourassa, L.-A. Breivik, M.F. Cronin, C. Fairall, S. Gille, E.C. Kent, C.M. Lee, M.J. McPhaden, P.M.S. Monteiro, U. Schuster, S.R. Smith, K.E. Trenberth, D. Wallace, and S.D. Woodruff, 2010: Surface Energy and CO₂ fluxes in the global ocean-atmosphere-ice system. In *Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 1)*, Venice, Italy, 21–25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., ESA Publication WPP-306.
- Huang, B., Y. Xue, D. Zhang, A. Kumar, and M. J. McPhaden, 2010: The NCEP GODAS Ocean Analysis of the Tropical Pacific Mixed Layer Heat Budget on Seasonal to Interannual Time Scales. *J. Climate*, 23, 4901-4925.
- Lampitt, R. S., P. Favali, C. R. Barnees, M. J. Church, M. F. Cronin, K. L. Hill, Y. Kaneda, D. M. Karl, A. H. Knap, M. J. McPhaden, K. A. Nittis, I. G. Priede, J.-F. Rolin, U. Send, C.-C. Teng, T. W. Trull, D. W. R. Wallace, R. A. Weller, 2010: In situ sustained Eulerian observatories. In *Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 1)*, Venice, Italy, 21-25 September 2009, Hall, J. Harrison, D. E., and Stammer, D., Eds., ESA Publication WPP-306.
- Lee, T., and M. J. McPhaden, 2010: Increasing intensity of El Niño in the central-equatorial Pacific. *Geophys. Res. Lett.*, 37, L14603, doi:10.1029/2010GL044007.
- Masumoto, Y., W. Yu, G. Meyers, N. D'Adamo, L. Beal, W.P.M. de Ruijter, M. Dyoulgerov, J. Hermes, T. Lee, J.R.E. Lutjeharms, J.P. McCreary, Jr., M.J. McPhaden, V.S.N. Murty, D. Obura, C.B. Pattiaratchi, M. Ravichandran, C. Reason, F. Syamsudin, G. Vecchi, J. Vialard, and L. Yu, 2010: Observing systems in the Indian Ocean. In *Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 2)*, Venice, Italy, 21–25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., ESA Publication WPP-306, doi: 10.5270/OceanObs09.cwp.60.
- McPhaden, M.J., K. Ando, B. Bourlès, H.P. Freitag, R. Lumpkin, Y. Masumoto, V.S.N. Murty, P. Nobre, M. Ravichandran, J. Vialard, D. Vousden, and W. Yu, 2010: The global tropical moored buoy array. In *Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 2)*, Venice, Italy, 21–25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., ESA Publication WPP-306.
- McPhaden, M. J., A. J. Busalacchi, and D. L. T. Anderson, 2010: A TOGA retrospective. *Oceanography*, 23, 86-103.
- Nagura, M., and M. J. McPhaden, 2010: Wyrтки Jet dynamics: Seasonal variability, *J. Geophys. Res.*, 115, C07009, doi:10.1029/2009JC005922.
- Nagura, M. and M. J. McPhaden, 2010: Dynamics of zonal current variations associated with the Indian Ocean dipole. *J. Geophys. Res.*, 115, C11026, doi:10.1029/2010JC006423.
- Radenac, M.-H, P. E. Plimpton, A. Lebourges-Dhaussy, L. Commien, and M. J. McPhaden, 2010: Impact of environmental forcing on the acoustic backscattering strength in the equatorial Pacific: diurnal, lunar, intraseasonal, and interannual variability. *Deep-Sea Res.*, 57, 1314-1328.
- Rienecker, M.M., T. Awaji, M. Balmaseda, B. Barnier, D. Behringer, M. Bell, M. Bourassa, P. Brasseur, J. Carton, J. Cummings, L.-A. Breivik, E. Dombrowsky, C. Fairall, N. Ferry, G.

- Forget, H. Freeland, S.M. Griffies, K. Haines, D.E. Harrison, P. Heimbach, M. Kamachi, E. Kent, T. Lee, P.-Y. Le Traon, M. McPhaden, M.J. Martin, P. Oke, M.D. Palmer, E. Remy, T. Rosati, A. Schiller, D.M. Smith, D. Snowden, D. Stammer, K.E. Trenberth, and Y. Xue, 2010: Synthesis and assimilation systems—Essential adjuncts to the Global Ocean Observing System. In *Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 1)*, Venice, Italy, 21–25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., ESA Publication WPP-306.
- Send, U., R. A. Weller, D. Wallace, F. Chavez, R. Lampitt, T. Dickey, M. Honda, K. Nittis, R. Lukas, M. McPhaden, and R. Feely, 2010: OceanSITES. In *Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 2)*, Venice, Italy, 21–25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., ESA Publication WPP-306, doi:10.5270/OceanObs09.cwp.79.
- Xue, Y., O. Alves, M.A. Balmaseda, N. Ferry, S. Good, I. Ishikawa, T. Lee, M.J. McPhaden, K.A. Peterson, and M. Rienecker, 2010: Ocean state estimation for global ocean monitoring: ENSO and beyond ENSO. In *Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 2)*, Venice, Italy, 21–25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., ESA Publication WPP-306.
- Zhang, X. and M.J. McPhaden, 2010: Interannual surface layer heat balance in the eastern equatorial Pacific and its relationship with local atmospheric forcing. *J. Climate*, 23, 4375–4394.
- Clarke, C., et al, 2009: An overview of global ocean observing Systems relevant to GODAE. *Oceanography*, 22, 22-33.
- Cravatte, S.E., T. Delcroix, D. Zhang, M.J. McPhaden, and J. Leloup, 2009: Observed freshening and warming of the western Pacific warm pool. *Clim. Dyn.*, 33, 565-589.
- Foltz, G.R., and M.J. McPhaden, 2009: Impact of barrier layer thickness on SST in the central tropical North Atlantic. *J. Climate*, 22, 285-299.
- McPhaden, M.J., G.R. Foltz, T. Lee, V.S.N. Murty, M. Ravichandran, G.A. Vecchi, J. Vialard, J.D. Wiggert, L. Yu, 2009: Ocean-Atmosphere Interactions During Cyclone Nargis. *EOS, Trans. Am. Geophys. Union*, 90, 53-54.
- McPhaden, M.J., G. Meyers, K. Ando, Y. Masumoto, V.S.N. Murty, M. Ravichandran, F. Syamsudin, J. Vialard, L. Yu, and W. Yu, 2009: RAMA: The Research Moored Array for African-Asian-Australian Monsoon Analysis and Prediction. *Bull. Am. Meteorol. Soc.*, 90, 459-480.
- McPhaden, M. J., and X. Zhang, 2009: Asymmetry in zonal phase propagation of ENSO sea surface temperature anomalies, *Geophys. Res. Lett.*, 36, L13703, doi:10.1029/2009GL038774.
- Vialard, J., J.P. Duvel, M. McPhaden, P. Bouruet-Aubertot, B. Ward, E. Key, D. Bourras, R. Weller, P. Minnett, A. Weill, C. Cassou, L. Eymard, T. Fristedt, C. Basdevant, Y. Dandoneau, O. Duteil, T. Izumo, C. de Boyer Montégut, S. Masson, and F. Marsac, 2009: Cirene: Air-sea interactions in the Seychelles-Chagos thermocline ridge region. *Bull. Am. Meteorol. Soc.*, 90, 45-61.

- Bourlès, B., R. Lumpkin, M.J. McPhaden, F. Hernandez, P. Nobre, E. Campos, L. Yu, S. Planton, A. Busalacchi, A.D. Moura, J. Servain, and J. Trotte, 2008: The PIRATA Program: History, Accomplishments, and Future Directions. *Bull. Amer. Meteor. Soc.*, 89, 1111-1125.
- Foltz, G.R., and M.J. McPhaden, 2008: Impact of Saharan dust on tropical North Atlantic SST. *J. Climate*, 21, 5048-5060.
- Foltz, G.R., and M.J. McPhaden, 2008: Trends in Saharan dust and tropical Atlantic climate during 1980-2006. *Geophys. Res. Lett.*, 35, L20706, doi:10.1029/2008GL035042.
- Foltz, G.R. and M.J. McPhaden, 2008: Seasonal mixed layer salinity balance of the tropical North Atlantic Ocean. *J. Geophys. Res.* 113, C02013, doi:10.1029/2007JC004178.
- Lee, T. and M.J. McPhaden, 2008: Decadal phase change in large-scale sea level and winds in the Indo-Pacific region at the end of the 20th century. *Geophys. Res. Lett.*, 35, L01605, doi:10.1029/2007GL032419.
- McPhaden, M.J., 2008: Evolution of the 2006-07 El Niño: The Role of Intraseasonal to Interannual Time Scale Dynamics. *Adv. Geosci.*, 14, 219-230.
- McPhaden, M.J., M.F. Cronin, and D.C. McClurg, 2008: Meridional structure of the surface mixed layer temperature balance on seasonal time scales in the eastern tropical Pacific. *J. Climate*, 21, 3240-3260.
- Nagura, M. and M.J. McPhaden, 2008: The dynamics of zonal current variations in the central equatorial Indian Ocean. *Geophys. Res. Lett.*, 35, K23603, doi:10.1029/2008GL035961.
- Vialard, J., G. Foltz, M.J. McPhaden, J.P. Duvel and C. de Boyer Montégut, 2008: Strong Indian Ocean sea surface temperature signals associated with the Madden-Julian oscillation in late 2007 and early 2008. *Geophys. Res. Lett.*, 35, L19608, doi:10.1029/2008GL035238.
- Yoneyama, K., et al, 2008: MISMO field experiment in the tropical Indian Ocean. *Bull. Am. Meteor. Soc.*, 89, 1889-1903.
- Zhang, X. and M.J. McPhaden, 2008: Eastern equatorial Pacific forcing of ENSO sea surface temperature anomalies. *J. Climate*, 21, 6070-6079.
- Cheng, W., M.J. McPhaden, D. Zhang, and E.J. Metzger, 2007: Recent changes in the Pacific subtropical cells inferred from an eddy resolving ocean circulation model. *J. Phys. Oceanogr.*, 37, 1340-1356.
- Delcroix, T., S. Cravatte, and M.J. McPhaden, 2007: Decadal variations and trends in tropical Pacific sea surface salinity since 1970. *J. Geophys. Res.*, 112(C3), C03012, doi:10.1029/2006JC003801.
- Behrenfeld, M.J., K. Worthington, R.M. Sherrell, F.P. Chavez, P. Strutton, M.J. McPhaden, and D.M. Shea, 2006: Controls on tropical Pacific Ocean productivity revealed through nutrient stress diagnostics. *Nature*, 442, 1025-1028.
- Bennett, A.F., B.S. Chua, H.-E. Ngodock, D.E. Harrison, and M.J. McPhaden, 2006: Generalized inversion of the Gent-Cane model of the Tropical Pacific with Tropical Atmosphere-Ocean (TAO) data. *J. Mar. Res.*, 64, 1-42.

- Cronin, M.F., C. Fairall, and M.J. McPhaden, 2006: An assessment of buoy derived and numerical weather prediction surface heat fluxes in the tropical Pacific. *J. Geophys. Res.*, *111*, C06038, doi:10.1029/2005JC003324.
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