

CURRICULUM VITAE

Arthur J. Miller

Climate, Atmospheric Science and Physical Oceanography (CASPO) Division
Oceans and Atmosphere Section
Scripps Institution of Oceanography
University of California, San Diego
La Jolla, CA 92093-0206
(858) 534-8033
ajmiller@ucsd.edu
<http://meteora.ucsd.edu/miller>

BIRTH: July 6, 1958 Cleveland, Ohio

DEGREES: 1980 B.S. in Physical Oceanography
Florida Institute of Technology

1986 Ph.D. in Physical Oceanography
Scripps Institution of Oceanography, UCSD

POSITIONS HELD:

2024-present Distinguished Research Oceanographer Emeritus
2000-present Senior Lecturer in Climate Sciences

2015-2020 Head, Oceans and Atmosphere Section
2010-2015 Director, CASPO Division
2009-2010 Associate Director, CASPO Division
2008-2009 Director, CASPO Division
2007-2008 Associate Director, CASPO Division
2000-2007 Associate Director, Climate Research Division
Scripps Institution of Oceanography

2019-2024 Distinguished Research Oceanographer

2000-2019 Research Oceanographer

1996-2000 Associate Research Oceanographer
Lecturer in Climate Sciences
Climate Research Division
Scripps Institution of Oceanography

1988-1996 Assistant Research Oceanographer
Climate Research Division
Scripps Institution of Oceanography

1992-1994 Scientist (while on leave from SIO)
 SACLANT Undersea Research Centre, La Spezia, Italy
1991 Orson Anderson Visiting Scholar
 IGPP, Los Alamos National Laboratory, Los Alamos, NM

1988 Lecturer (while at SIO)
 Department of Geography, San Diego State University

1986-1988 Andrew W. Mellon Foundation Postdoctoral Fellow
 Climate Research Group
 Scripps Institution of Oceanography

1980-1986 Research Assistant
 Institute of Geophysics and Planetary Physics
 Scripps Institution of Oceanography

1980 Physicist
 Naval Research Laboratory, Orlando, Florida

PROFESSIONAL

SOCIETIES: American Meteorological Society, American Geophysical Union,
 The Oceanography Society

RESEARCH

INTERESTS: Ocean and Coupled Ocean-Atmosphere Modeling and Dynamics,
 Pacific Decadal Variability, Marine Ecosystem Response to Climate,
 Ocean Data Assimilation, Predictability, Rossby Waves, Long-Period Tides

PUBLICATIONS

SUMMARY: Refereed publications: ~150
 Total citations: over 14,500 (Google Scholar)
 H-Index (N papers with N citations): ~55 (GS)
 Papers exceeding 100 citations: ~31 (GS)

DISSERTATION:

Miller, A. J., 1986: Barotropic planetary-topographic oscillations in ocean basins. Ph.D.
dissertation. Scripps Institution of Oceanography, University of California, San Diego,
133 pp. [Advisor: Prof. Myrl C. Hendershott]

REFEREED PUBLICATIONS:

Miller, A. J., 1986: Non-divergent planetary oscillations in mid-latitude ocean basins with
continental shelves. *Journal of Physical Oceanography*, **16**, 1914-1928.

- Miller, A. J., W. R. Holland and M. C. Hendershott, 1987: Open-ocean response and normal mode excitation in an eddy-resolving general circulation model. *Geophysical & Astrophysical Fluid Dynamics*, **37**, 253-278.
- Miller, A. J., 1989: On the barotropic planetary oscillations of the Pacific. *Journal of Marine Research*, **47**, 569-594.
- Miller, A. J. and J. O. Roads, 1990: A simplified coupled model of extended-range predictability. *Journal of Climate*, **3**, 523-542.
- Miller, A. J., 1992: Large-scale ocean-atmosphere interactions in a simplified coupled model of the midlatitude wintertime circulation. *Journal of the Atmospheric Sciences*, **49**, 273-286.
- Miller, A. J., 1992: On forced barotropic vorticity oscillations. *Journal of Physical Oceanography*, **22**, 808-810.
- Miller, A. J., J. M. Oberhuber, N. E. Graham and T. P. Barnett, 1992: Tropical Pacific Ocean response to observed winds in a layered ocean general circulation model. *Journal of Geophysical Research-Oceans*, **97**, 7317-7340.
- Miller, A. J., D. S. Luther and M. C. Hendershott, 1993: The fortnightly and monthly tides: Resonant Rossby waves or nearly equilibrium gravity waves? *Journal of Physical Oceanography*, **23**, 879-897.
- Miller, A. J., T. P. Barnett and N. E. Graham, 1993: A comparison of some tropical ocean models: Hindcast skill and El Nino evolution. *Journal of Physical Oceanography*, **23**, 1567-1591.
- Miller, A. J., D. R. Cayan, T. P. Barnett, N. E. Graham and J. M. Oberhuber, 1994: Interdecadal variability of the Pacific Ocean: Model response to observed heat flux and wind stress anomalies. *Climate Dynamics*, **9**, 287-302.
- Miller, A. J., D. R. Cayan, T. P. Barnett, N. E. Graham, J. M. and Oberhuber, 1994: The 1976-77 climate shift of the Pacific Ocean. *Oceanography*, **7**, 21-26.
- Miller, A. J., H. G. Arango, A. R. Robinson, W. G. Leslie, P.-M. Poulain and A. Warn-Varnas, 1995: Quasigeostrophic forecasting and physical processes of Iceland-Faroe Frontal variability. *Journal of Physical Oceanography*, **25**, 1273-1295.
- Miller, A. J., P.-M. Poulain, A. R. Robinson, H. G. Arango, W. G. Leslie and A. Warn-Varnas, 1995: Quantitative skill of quasigeostrophic forecasts of a baroclinically unstable Iceland-Faroe Front. *Journal of Geophysical Research-Oceans*, **100**, 10,833-10,849.
- Cayan, D. R., A. J. Miller, T. P. Barnett, N. E. Graham, J. N. Ritchie and J. M. Oberhuber, 1995: Seasonal-interannual fluctuations in surface temperature over the Pacific: Effects of monthly winds and heat fluxes. In: *Natural Climate Variability on Decadal-to-Century Time Scales*, National Academy Press, pp. 133-150.
- Robinson, A. R., H. G. Arango, A. J. Miller, P.-M. Poulain, A. Warn-Varnas and W. G. Leslie, 1996: Real time operational forecasting on shipboard of the Iceland-Faroe frontal variability. *Bulletin of the American Meteorological Society*, **77**, 243-259.
- Robinson, A. R., H. G. Arango, A. Warn-Varnas, W. G. Leslie, A. J. Miller, P. J. Haley and C. J. Lozano, 1996: Real-time regional forecasting. In: *Modern Approaches to Data Assimilation in Ocean Modeling*, P. Malanotte-Rizzoli, ed., Elsevier Science, B.V., pp. 377-410.

- Miller, A. J., 1996: Recent advances in California Current modeling: Decadal and interannual thermocline variations. In: *California Cooperative Oceanic Fisheries Investigations Reports*, **37**, 69-79.
- Nese, J. M., A. J. Miller and J. A. Dutton, 1996: The nature of predictability enhancement in a low-order ocean-atmosphere model. *Journal of Climate*, **9**, 2167-2172.
- Miller, A. J., P. F. G. Lermusiaux and P.-M. Poulain, 1996: A topographic-Rossby mode resonance over the Iceland-Faeroe Ridge. *Journal of Physical Oceanography*, **26**, 2735-2747.
- Miller, A. J., W. B. White and D. R. Cayan, 1997: North Pacific thermocline variations on ENSO time scales. *Journal of Physical Oceanography*, **27**, 2023-2039.
- Miller, A. J., D. R. Cayan and W. B. White, 1998: A westward intensified decadal change in the North Pacific thermocline and gyre-scale circulation. *Journal of Climate*, **11**, 3112-3127.
- Auad, G., A. J. Miller and W. B. White, 1998: Simulation of heat storages and associated heat budgets in the Pacific Ocean - 2. Interdecadal timescale. *Journal of Geophysical Research-Oceans*, **103**, 27,621-27,636.
- Auad, G., A. J. Miller and W. B. White, 1998: Simulation of heat storages and associated heat budgets in the Pacific Ocean - 1. El Nino Southern Oscillation timescale. *Journal of Geophysical Research-Oceans*, **103**, 27,603-27,620.
- Schneider, N., A. J. Miller, M. A. Alexander and C. Deser, 1999: Subduction of North Pacific temperature anomalies: Observations and dynamics. *Journal of Physical Oceanography*, **29**, 1056-1070.
- Schneider, N., S. Venzke, A. J. Miller, D. W. Pierce, T. P. Barnett, C. Deser and M. Latif, 1999: Pacific thermocline bridge revisited. *Geophysical Research Letters*, **26**, 1329-1332.
- Miller, A. J., and B. D. Cornuelle, 1999: Forecasts from fits of frontal fluctuations. *Dynamics of Atmospheres and Oceans*, **29**, 305-333.
- Miller, A. J., J. C. McWilliams, N. Schneider, J. S. Allen, J. A. Barth, R. C. Beardsley, F. P. Chavez, T. K. Chereskin, C. A. Edwards, R. L. Haney, K. A. Kelly, J. C. Kindle, L. N. Ly, J. R. Moisan, M. A. Noble, P. P. Niiler, L. Y. Oey, F. B. Schwing, R. K. Shearman, and M. S. Swenson, 1999: Observing and modeling the California Current System. *Eos, Transactions, American Geophysical Union*, **80**, 533-539.
- Miller, A. J., and Schneider, N., 2000: Interdecadal climate regime dynamics in the North Pacific Ocean: Theories, observations and ecosystem impacts. *Progress in Oceanography*, **47**, 355-379.
- Miller, A. J., E. Di Lorenzo, D. J. Neilson, B. D. Cornuelle and J. R. Moisan, 2000: Modeling CalCOFI observations during El Nino: Fitting physics and biology. *California Cooperative Oceanic Fisheries Investigations Reports*, **41**, 87-97.
- Auad, G., A. J. Miller, J. O. Roads, D. R. Cayan: Pacific Ocean wind stresses and surface heat fluxes from the NCEP Reanalysis and observations: Cross-statistics and ocean model responses. *Journal of Geophysical Research-Oceans*, **106**, 22,249-22,265
- Schneider, N. and A. J. Miller, 2001: Predicting western North Pacific Ocean climate. *Journal of Climate (letters)*, **14**, 3997-4002.
- Schneider, N., A. J. Miller, and D. W. Pierce, 2002: Anatomy of North Pacific decadal variability. *Journal of Climate*, **15**, 586-605.

- Miller, A. J., M. A. Alexander, G. J. Boer, F. Chai, K. Denman, D. J. Erickson, R. Frouin, A. J. Gabric, E. A. Laws, M. R. Lewis, Z. Liu, R. Murtugudde, S. Nakamoto, D. J. Neilson, J. R. Norris, J. C. Ohlmann, R. I. Perry, N. Schneider, K. M. Shell and A. Timmermann, 2003: Potential feedbacks between Pacific Ocean ecosystems and interdecadal climate variations. *Bulletin of the American Meteorological Society*, **84**, 617-633.
- McGowan, J. A., S. Bograd, R. J. Lynn and A. J. Miller, 2003: The biological response of the 1977 regime shift in the California Current. *Deep-Sea Research*, **50**, 2567-2582.
- Auad, G., J. P. Kennett and A. J. Miller, 2003: The North Pacific Intermediate Water response to a modern climate shift. *Journal of Geophysical Research-Oceans*, **108**, 3349.
- Miller, A. J., F. Chai, S. Chiba, J. R. Moisan and D. J. Neilson, 2004: Decadal-scale climate and ecosystem interactions in the North Pacific Ocean. *Journal of Oceanography*, **60**, 163-188.
- Moore, A. M., H. G. Arango, E. Di Lorenzo, B. D. Cornuelle, A. J. Miller, and D. J. Neilsen, 2004: A comprehensive ocean prediction and analysis system based on the tangent linear and adjoint of a regional ocean model, *Ocean Modeling*, **7**, 227
- Di Lorenzo, E., A. J. Miller, D. J. Neilson, B. D. Cornuelle, and J. R. Moisan, 2004: Modeling observed California Current mesoscale eddies and the ecosystem response. *International Journal of Remote Sensing*, **25**, 1307-1312.
- Auad, G., A. J. Miller and J. O. Roads, 2004: Pacific Ocean forecasts. *Journal of Marine Systems*, **45**, 75-90.
- Moisan, J. R., A. J. Miller, E. Di Lorenzo and J. Wilkin, 2005: Modeling and data assimilation. In: *Remote Sensing in Coastal Aquatic Environments*, R. L. Miller, C. E. Del Castillo, and B. A. McKee, Eds., Springer, The Netherlands, pp. 229-257.
- Di Lorenzo, E., A. J. Miller, N. Schneider and J. C. McWilliams, 2005: The warming of the California Current: Dynamics and ecosystem implications. *Journal of Physical Oceanography*, **35**, 336-362.
- Miller, A. J., E. Di Lorenzo, D. J. Neilson, H.-J. Kim, A. Capotondi, M. A. Alexander, S. J. Bograd, F. B. Schwing, R. Mendelssohn, K. Hedstrom and D. L. Musgrave, 2005: Interdecadal changes in mesoscale eddy variance in the Gulf of Alaska circulation: Possible implications for the Steller sea lion decline. *Atmosphere-Ocean*, **43**, 231-240.
- Bograd, S. J., R. Mendelssohn, F. B. Schwing and A. J. Miller, 2005: Spatial heterogeneity of sea surface temperature trends in the Gulf of Alaska. *Atmosphere-Ocean*, **43**, 241-247.
- Capotondi, A., M. A. Alexander, C. Deser and A. J. Miller, 2005: Low-frequency pycnocline variability in the Northeast Pacific. *Journal of Physical Oceanography*, **35**, 1403-1420.
- Seo, H., M. Jochum, R. Murtugudde and A. J. Miller, 2006: Effect of ocean mesoscale variability on the mean state of tropical Atlantic climate. *Geophysical Research Letters*, **33**, L09606.
- Mestas-Nunez, A. M. and A. J. Miller, 2006: Interdecadal variability and climate change in the Eastern Tropical Pacific: A review. *Progress in Oceanography*, **69**, 267-284.

- Auad, G., A. Miller and E. Di Lorenzo, 2006: Long term forecast of oceanic conditions off California and biological implications. *Journal of Geophysical Research-Oceans*, **111**, C09008.
- Miller, A. J., A. J. Gabric, J. R. Moisan, F. Chai, D. J. Neilson, D. W. Pierce, and E. Di Lorenzo, 2006: Global change and oceanic primary productivity: Effects of ocean-atmosphere-biological feedbacks. In: *Global Climate Change and Response of the Carbon Cycle in the Equatorial Pacific and Indian Oceans and Adjacent Land Masses*, H. Kawahata and Y. Awaya, Eds., Elsevier Oceanography Series, **73**, 29-65.
- Trites, A. W., A. J. Miller, H. D. G. Maschner, M. A. Alexander, S. J. Bograd, J. A. Calder, A. Capotondi, K. O. Coyle, E. Di Lorenzo, B. P. Finney, E. J. Gregr, C. E. Grosch, S. R. Hare, G. L. Hunt, J. Jahncke, N. B. Kachel, H.-J. Kim, C. Ladd, N. J. Mantua, C. Marzban, W. Maslowski, R. Mendelssohn, D. J. Neilson, S. R. Okkonen, J. E. Overland, K. L. Reedy-Maschner, T. C. Royer, F. B. Schwing, J. X. L. Wang and A. J. Winship, 2007: Bottom-up forcing and the decline of Steller sea lions (*Eumetopias jubatus*) in Alaska: Assessing the ocean climate hypothesis. *Fisheries Oceanography*, **16**, 46-67.
- Di Lorenzo, E., A. M. Moore, H. G. Arango, B. D. Cornuelle, A. J. Miller, B. Powell, B. S. Chua and A. F. Bennett, 2007: Weak and strong constraint data assimilation in the inverse Regional Ocean Modeling System (ROMS): Development and application for a baroclinic coastal upwelling system. *Ocean Modelling*, **16**, 160-187.
- Seo, H., A. J. Miller and J. O Roads, 2007: The Scripps Coupled Ocean-Atmosphere Regional (SCOAR) model, with applications in the eastern Pacific sector. *Journal of Climate*, **20**, 381-402.
- Kim, H-J. and A. J. Miller, 2007: Did the thermocline deepen in the southern California Current after the 1976-77 climate regime shift? *Journal of Physical Oceanography*, **37**, 1733-1739.
- Seo, H., M. Jochum, R. Murtugudde, A. J. Miller and J. O. Roads, 2007: Feedback of Tropical Instability Wave-induced atmospheric variability onto the ocean. *Journal of Climate*, **20**, 5842-5855.
- Miller, A. J., D. J. Neilson, D. S. Luther, M. C. Hendershott, B. D. Cornuelle, P. F. Worcester, M. A. Dzieciuch, B. D. Dushaw, B. M. Howe, J. C. Levin, H. G. Arango and D. B. Haidvogel, 2007: Barotropic Rossby wave radiation from a model Gulf Stream. *Geophysical Research Letters*, **34**, L23613.
- Auad, G. and A. J. Miller, 2008: The role of tidal forcing in the Gulf of Alaska's circulation. *Geophysical Research Letters*, **35**, L02602.
- Haidvogel, D. B., H. Arango, W. P. Budgell, B. D. Cornuelle, E. Curchitser, E. Di Lorenzo, K. Fennel, W. R. Geyer, A. J. Hermann, L. Lanerolle, J. Levin, J. C. McWilliams, A. J. Miller, A. M. Moore, T. M. Powell, A. F. Shchepetkin, C. R. Sherwood, R. P. Signell, John C. Warner, and J. Wilkin, 2008: Regional ocean forecasting in terrain-following coordinates: model formulation and skill assessment. *Journal of Computational Physics*, **227**, 3595-3624.
- Alexander, M., A. Capotondi, A. Miller, F. Chai, R. Brodeur and C. Deser, 2008: Decadal variability in the Northeast Pacific in a physical-ecosystem model: Role of mixed layer depth and trophic interactions. *Journal of Geophysical Research-Oceans*, **113**, C02017.

- Seo, H., M. Jochum, R. Murtugudde, A. J. Miller and J. O. Roads, 2008: Precipitation from African Easterly Waves in a coupled model of the tropical Atlantic. *Journal of Climate*, **21**, 1417-1431.
- Di Lorenzo, E., N. Schneider, K. M. Cobb, P. J. S. Franks, K. Chhak, A. J. Miller, J. C. McWilliams, S. J. Bograd, H. Arango, E. Curchitser, T. M. Powell and P. Riviere, 2008: North Pacific Gyre Oscillation links ocean climate and ecosystem change. *Geophysical Research Letters*, **35**, L08607.
- Muccino, J.C., H.G. Arango, A.F. Bennett, B.S. Chua, B.D. Cornuelle, E. Di Lorenzo, G.D. Egbert, D. Haidvogel, L. Hao, J.C. Levin, A.J. Miller, A.M. Moore and E.D. Zaron, 2008: The inverse ocean modeling system. II: Applications. *Journal of Atmospheric and Oceanic Technology*, **25**, 1623-1637.
- Seo, H., R. Murtugudde, M. Jochum and A. J. Miller, 2008: Modeling of mesoscale coupled ocean-atmosphere interaction and its feedback to ocean in the western Arabian Sea. *Ocean Modelling*, **25**, 120-131.
- Moore, A. M., H. G. Arango, E. Di Lorenzo, A. J. Miller and B. D. Cornuelle, 2009: An adjoint sensitivity analysis of the Southern California Current circulation and ecosystem. *Journal of Physical Oceanography*, **39**, 702-720.
- Capotondi, A., V. Combes, M. A. Alexander, E. Di Lorenzo and A. J. Miller, 2009: Low-frequency variability in the Gulf of Alaska from coarse and eddy-permitting ocean models. *Journal of Geophysical Research-Oceans*, **114**, C01017.
- Kim, H.-J., A. J. Miller, J. McGowan and M. Carter, 2009: Coastal phytoplankton blooms in the Southern California Bight. *Progress in Oceanography*, **82**, 137-147.
- Di Lorenzo, E., J. Fiechter, N. Schneider, A. Bracco, A. J. Miller, P. J. S. Franks, S. J. Bograd, A. M. Moore, A. C. Thomas, W. Crawford, A. Pena and A. J. Hermann, 2009: Nutrient and salinity decadal variations in the central and eastern North Pacific. *Geophysical Research Letters*, **36**, L14601.
- Seo, H., S.-P. Xie, R. Murtugudde, M. Jochum and A. J. Miller, 2009: Seasonal effects of Indian Ocean freshwater forcing in a regional coupled model. *Journal of Climate*, **22**, 6577-6596.
- Overland, J., J. Alheit, A. Bakun, J. Hurrell, D. L. Mackus and A. J. Miller, 2010: Climate controls on marine ecosystems and fish populations. *Journal of Marine Systems*, **79**, 305-315.
- Ito, S.-I., K. A. Rose, A. J. Miller, K. Drinkwater, K. M. Brander, J. E. Overland, S. Sundby, E. Curchitser, J. W. Hurrell and Y. Yamanaka, 2010: Ocean ecosystem responses to future global change scenarios: A way forward. In: *Global Change and Marine Ecosystems*, M. Barange, J. Field, R. Harris, E. Hofmann, I. Perry and F. Werner, Eds., Oxford university Press, pp. 287-322.
- Yeh, S.-W., Y.-J. Kang, Y. Noh and A. J. Miller, 2011: The North Pacific climate transitions of the winters of 1976/77 and 1988/89. *Journal of Climate*, **24**, 1170-1183.
- Bromirski, P. D., A. J. Miller, R. E. Flick and G. Auad, 2011: Dynamical suppression of sea level rise along the Pacific Coast of North America: Indications for imminent acceleration. *Journal of Geophysical Research-Oceans*, **116**, C07005.
- Song, H., A. J. Miller, B. D. Cornuelle and E. Di Lorenzo, 2011: Changes in upwelling and its water sources in the California Current System driven by different wind forcing. *Dynamics of Atmospheres and Oceans*, **52**, 170-191.

- Subramanian, A. C., M. Jochum, A. J. Miller, R. Murtugudde, R. B. Neale and D. E. Waliser, 2011: The Madden Julian Oscillation in CCSM4. *Journal of Climate*, **24**, 6261-6282.
- Macias, D., M. R. Landry, A. Gershunov, A. J. Miller and P. S. Franks, 2012: Climatic control of upwelling variability along the western North-American Coast. *PLoS ONE*, **7**, e30436.
- Bromirski, P. D., A. J. Miller and R. E. Flick, 2012: Understanding North Pacific sea level trends. *Eos, Transactions, American Geophysical Union*, **93**, 249-256.
- Freeman, L. A., A. J. Miller, R. D. Norris and J. E. Smith, 2012: Classification of remote Pacific coral reefs by physical oceanographic environment. *Journal of Geophysical Research-Oceans*, **117**, C02007.
- Song, H., A. J. Miller, S. McClatchie, E. D. Weber, K. M. Nieto and D. M. Checkley, 2012: Application of a data-assimilation model to variability of Pacific sardine spawning and survivor habitats with ENSO in the California Current System. *Journal of Geophysical Research-Oceans*, **117**, C03009.
- Subramanian, A. C., I. Hoteit, B. Cornuelle, A. J. Miller and H. Song, 2012: Linear vs. nonlinear filtering with scale selective corrections for balanced dynamics in a simple atmospheric model. *Journal of the Atmospheric Sciences*, **69**, 3405-3419.
- Subramanian, A. C., A. J. Miller, B. D. Cornuelle, E. Di Lorenzo, R. A. Weller and F. Straneo, 2013: A data assimilative perspective of oceanic mesoscale eddy evolution during VOCALS-REx *Atmospheric Chemistry and Physics*, **13**, 3329-3344.
- Putrasahan, D. A., A. J. Miller and H. Seo, 2013: Regional coupled ocean-atmosphere downscaling in the Southeast Pacific: Impacts on upwelling, mesoscale air-sea fluxes, and ocean eddies. *Ocean Dynamics*, **63**, 463-488.
- Putrasahan, D. A., A. J. Miller and H. Seo, 2013: Isolating mesoscale coupled ocean-atmosphere interactions in the Kuroshio Extension region. *Dynamics of Atmospheres and Oceans*, **63**, 60-78.
- DeFlorio, M. J., D. W. Pierce, D. R. Cayan and A. J. Miller, 2013: Western U.S. extreme precipitation events and their relation to ENSO and PDO in CCSM4. *Journal of Climate*, **26**, 4231-4243.
- Franks, P. J. S., E. Di Lorenzo, N. L. Goebel, F. Chenillat, P. Riviere, C. A. Edwards and A. J. Miller, 2013: Modeling physical-biological responses to climate change in the California Current System. *Oceanography*, **26**, 26-33.
- Ohman, M., K. Barbeau, P. Franks, R. Goericke, M. Landry and A. J. Miller, 2013: Ecological transitions in a coastal upwelling ecosystem. *Oceanography*, **26**, 210.
- Freeman, L. A., J. A. Kleypas and A. J. Miller, 2013: Coral reef habitat response to climate change scenarios. *PLoS ONE*, **8**, e82404.
- Moon, J.-H., Y. T. Song, P. D. Bromirski and A. J. Miller, 2013: Multi-decadal regional sea level shifts in the Pacific over 1958-2008. *Journal of Geophysical Research-Oceans*, **118**, 1-12.
- Subramanian, A., M. Jochum, A. J. Miller, R. Neale, H. Seo, D. Waliser and R. Murtugudde, 2014: The MJO and global warming: A study in CCSM4. *Climate Dynamics*, **42**, 2019-2031.
- DeFlorio, M. J., S. J. Ghan, B. Singh, A. J. Miller, D. R. Cayan, L. M. Russell and R. C. J. Somerville, 2014: Semi-direct dynamical and radiative effect of North African dust

- transport on lower tropospheric clouds over the subtropical North Atlantic in CESM 1.0. *Journal of Geophysical Research-Atmospheres*, **119**, 8284-8303.
- Seo, H., A. C. Subramanian, A. J. Miller, and N. R. Cavanaugh, 2014: Coupled impacts of the diurnal cycle of sea surface temperature on the Madden-Julian Oscillation. *Journal of Climate*, **27**, 8422-8443.
- Li, L., J. L. McClean, A. J. Miller, I. Eisenman, M. C. Hendershott and C. A. Papadopoulos, 2014: Processes driving sea ice variability in the Bering Sea in an eddying ocean/sea ice model: Mean seasonal cycle. *Ocean Modelling*, **84**, 51-66.
- Li, L., A. J. Miller, J. L. McClean, I. Eisenman and M. C. Hendershott, 2014: Processes driving sea ice variability in the Bering Sea in an eddying ocean/sea ice model: Anomalies from the mean seasonal cycle. *Ocean Dynamics*, **64**, 1693-1717.
- Cavanaugh, N. R., T. Allen, A. Subramanian, B. Mapes, H. Seo and A. J. Miller, 2015: The skill of atmospheric linear inverse models in hindcasting the Madden-Julian Oscillation. *Climate Dynamics*, **44**, 897-906.
- Miller, A. J., H. Song and A. C. Subramanian, 2015: The physical oceanographic environment during the CCE-LTER years: Changes in climate and concepts. *Deep-Sea Research II*, **112**, 6-17.
- Amaya, D., S.-P. Xie, A. J. Miller and M. J. McPhaden, 2015: Seasonality of tropical Pacific decadal trends associated with the 21st century global warming hiatus. *Journal of Geophysical Research-Oceans*, **120**, 6782-6798.
- Rasmussen, L., P. D. Bromirski, A. J. Miller, D. Arcas, R. E. Flick and M. C. Hendershott, 2015: Source location impact on relative tsunami strength along the U.S. West Coast. *Journal of Geophysical Research-Oceans*, **120**, 4945-4961.
- Bakun, A., B. A. Black, S. J. Bograd, M. Garcia-Reyes, A. J. Miller, R. R. Rykaczewski and W. J. Sydeman, 2015: Anticipated effects of climate change on coastal upwelling ecosystems. *Current Climate Change Reports*, **1**, 85-93.
- Xu, L., D. W. Pierce, L. M. Russell, A. J. Miller, R. C. J. Somerville, C. H. Twohy, S. J. Ghan, B. Singh, J.-H. Yoon, and P. J. Rasch, 2015: Interannual to decadal climate variability of sea salt aerosols in the coupled climate model CESM1.0 *Journal of Geophysical Research-Atmospheres*, **120**, 1502-1519.
- Suanda, S., N. Kumar, A. J. Miller, E. Di Lorenzo, K. Haas, D. Cai, C. A. Edwards, L. Washburn, M. Fewings, R. Torres and F. Feddersen, 2016: Wind relaxation and a coastal buoyant plume north of Pt. Conception, CA: Observations, simulations, and scalings. *Journal of Geophysical Research-Oceans*, **121**, 7455-7475.
- Yang, Y., L. M. Russell, L. Xu, S. Lou, M. A. Lamjiri, R. C. J. Somerville, A. J. Miller, D. R. Cayan, M. J. DeFlorio, S. J. Ghan, Y. Liu, B. Singh, H. Wang, J.-H. Yoon and P. J. Rasch, 2016: Impacts of ENSO events on cloud radiative effects in preindustrial conditions: Changes in cloud fraction and their dependence on interactive aerosol emissions and concentrations. *Journal of Geophysical Research-Atmospheres*, **121**, 6321-6335.
- Pezzi, L. P., R. B. Souza, P. C. Farias, O. Acevedo and A. J. Miller, 2016: Air-sea interaction at the Southern Brazilian Continental Shelf: In situ observations. *Journal of Geophysical Research-Oceans*, **121**, 6671-6695.
- Lou, S., L. M. Russell, Y. Yang, L. Xu, M. A. Lamjiri, M. DeFlorio, A. J. Miller, S. J. Ghan, Y. Liu and B. Singh, 2016: Impacts of the East Asian Monsoon on springtime

- dust concentrations over China. *Journal of Geophysical Research-Atmospheres*, **121**, 8137-8152.
- Newman, M., M. A. Alexander, T. R. Ault, K. M. Cobb, C. Deser, E. Di Lorenzo, N. J. Mantua, A. J. Miller, S. Minobe, H. Nakamura, N. Schneider, D. J. Vimont, A. S. Phillips, J. D. Scott and C. A. Smith, 2016: The Pacific Decadal Oscillation, revisited. *Journal of Climate*, **29**, 4399-4427.
- Seo, H., A. J. Miller and J. R. Norris, 2016: Eddy-wind interaction in the California Current System: Dynamics and impacts. *Journal of Physical Oceanography*, **46**, 439.
- DeFlorio, M. J., I. D. Goodwin, D. R. Cayan, A. J. Miller, S. J. Ghan, D. W. Pierce, L. M. Russell and B. Singh, 2016: Interannual modulation of subtropical Atlantic boreal summer dust variability by ENSO. *Climate Dynamics*, **46**, 585-599.
- Miller, A. J., M. Collins, S. Gualdi, T. G. Jensen, V. Misra, L. P. Pezzi, D. W. Pierce, D. Putrasahan, H. Seo and Y.-H. Tseng, 2017: Coupled ocean-atmosphere modeling and predictions. *Journal of Marine Research*, **75**, 361-402.
- Amaya, D., M. J. DeFlorio, A. J. Miller and S.-P. Xie, 2017: WES feedback and the Atlantic Meridional Mode: Observations and CMIP5 comparisons. *Climate Dynamics*, **49**, 1665-1679.
- Gan, B., L. Wu, F. Jia, S. Li, W. Cai, H. Nakamura, M. A. Alexander and A. J. Miller, 2017: On the response of the Aleutian Low to greenhouse warming. *Journal of Climate*, **30**, 3907-3925.
- Stukel, M. R., L. I. Aluwihare, K. A. Barbeau, A. M. Chekalyuk, R. Goericke, A. J. Miller, M. D. Ohman, A. Ruacho, H. Song, B. M. Stephens and M. R. Landry, 2017: Mesoscale ocean fronts enhance carbon export due to gravitational sinking and subduction. *Proceedings of the National Academy of Sciences*, **114**, 1252-1257.
- Bromirski, P. D., R. E. Flick and A. J. Miller, 2017: Storm surge along the Pacific Coast of North America. *Journal of Geophysical Research-Oceans*, **122**, 441-457.
- Yi, D. L., B. Gan, L. Wu and A. J. Miller, 2018: The North Pacific Gyre Oscillation and mechanisms of its decadal variability in CMIP5 models. *J. of Climate*, **31**, 2487-2509.
- Stukel, M. R., H. Song, R. Goericke and A. J. Miller, 2018: The role of subduction and gravitational sinking in particle export, carbon sequestration, and the remineralization length scale in the California Current Ecosystem. *Limnology Oceanography*, **63**, 363..
- Pullen, J., R. Allard, H. Seo, A. J. Miller, S. Chen, L. P. Pezzi, T. Smith, P. Chu, J. Alves and R. Caldeira, 2017: Coupled ocean-atmosphere forecasting at short and medium time scales. *Journal of Marine Research*, **75**, 877-921.
- Amaya, D., N. Siler, S.-P. Xie and A. J. Miller, 2018: The interplay of internal and forced modes of Hadley Cell expansion: Lessons from the global warming hiatus. *Climate Dynamics*, **51**, 305-319.
- Lennert-Cody, C. E., S. C. Clarke, A. Aires-da-Silva, M. N. Maunder, P. J. S. Franks, M. Román, A. J. Miller and M. Minami, 2018: The importance of environment and life stage on interpretation of silky shark relative abundance indices for the equatorial Pacific Ocean. *Fisheries Oceanography*, **28**, 43-53.
- Dias, D. F., A. Subramanian, L. Zanna and A. J. Miller, 2018: Remote and local influences in forecasting Pacific SST: A Linear Inverse Model and a multimodel ensemble study *Climate Dynamics*, **52**, 3183-3201.

- Kilpatrick, T., S.-P. Xie, A. J. Miller and N. Schneider, 2018: Satellite observations of enhanced chlorophyll variability in the Southern California Bight. *Journal of Geophysical Research-Oceans*, **123**, 7550-7563.
- Capotondi, A., P. D. Sardeshmukh, E. Di Lorenzo, A. Subramanian and A. J. Miller, 2019: Predictability of US West Coast Ocean Temperatures is not solely due to ENSO. *Scientific Reports*, **9**, 10993.
- Kumar, N., S. H. Suanda, J. A. Colosi, K. Haas, E. Di Lorenzo, A. J. Miller and C. A. Edwards, 2019: Coastal semidiurnal internal tidal incoherence in the Santa Maria Basin, California: Observations and model simulations. *Journal of Geophysical Research-Oceans*, **124**, 5158-5179.
- Sanchez, S. C., D. J. Amaya, A. J. Miller, S.-P. Xie and C. D. Charles, 2019: The Pacific Meridional Mode over the last millennium. *Climate Dynamics*, **53**, 3547-3560.
- Sun, R., A. C. Subramanian, A. J. Miller, M. R. Mazloff, I. Hoteit and B. D. Cornuelle, 2019: SKRIPS v1.0: A regional coupled ocean-atmosphere modeling framework (MITgcm-WRF) using ESMF/NUOPC, description and preliminary results for the Red Sea. *Geoscientific Model Development*, **12**, 4221-4244.
- Amaya, D. J., Y. Kosaka, W. Zhou, Y. Zhang, S.-P. Xie and A. J. Miller, 2019: The North Pacific pacemaker effect on historical ENSO and its mechanisms. *Journal of Climate*, **32**, 7643-7661.
- Cordero-Quiros, N., A. J. Miller, A. C. Subramanian, J. Y. Luo and A. Capotondi, 2019: Composite physical-biological El Nino and La Nina conditions in the California Current System in CESM1-POP2-BEC. *Ocean Modelling*, **142**, 101439.
- Capotondi, A., M. Jacox, C. Bowler, M. Kavanaugh, P. Lehodey, D. Barrie, S. Brodie, S. Chaffron, W. Cheng, D. Faggiani Dias, D. Eveillard, L. Guidi, D. Iudicone, N. Lovenduski, J. A. Nye, I. Ortiz, D. E. Pirhalla, M. Pozo Buil, V. Saba, S. C. Sheridan, S. Siedlecki, A. Subramanian, C. De Vargas, E. Di Lorenzo, S. C. Doney, A. J. Hermann, T. Joyce, M. Merrifield, A. J. Miller, F. Not, S. Pesant, 2019: Observational needs supporting marine ecosystems modeling and forecasting: From the global ocean to regional and coastal systems. *Frontiers in Marine Science*, **6**, 623.
- Hell, M. C., B. D. Cornuelle, S. Gille, A. J. Miller and P. D. Bromirski, 2019: Identifying ocean swell generation events from Ross Ice Shelf seismic data. *Journal of Atmospheric and Oceanic Technology*, **36**, 2171-2189.
- Ajoku, O., J. R. Norris and A. J. Miller, 2020: Observed monsoon precipitation suppression caused by anomalous interhemispheric aerosol transport. *Climate Dynamics*, **54**, 1077-1091.
- Eliashiv, J., A. C. Subramanian and A. J. Miller, 2020: Tropical climate variability in the Community Earth System Model: Data Assimilation Research Testbed. *Climate Dynamics*, **54**, 793-806.
- Eliashiv, J., A. C. Subramanian and A. J. Miller, 2020: A Reliability Budget analysis of CESM-DART. *J. of Advances in Modeling Earth Systems*, **12**, e2019MS001678.
- Jacox, M.G., M. Alexander, S. Siedlecki, K. Chen, Y.-O. Kwon, S. Brodie, I. Ortiz, D. Tommasi, M. Widlansky, D. Barrie, A. Capotondi, W. Cheng, E. Di Lorenzo, C. Edwards, J. Fiechter, P. Fratantoni, E. Hazen, A. J. Hermann, A. Kumar, A. J. Miller, D. Pirhalla, M. Pozo Buil, S. Ray, S. C. Sheridan, A. Subramanian, P. Thompson, L. Thorne, H. Annamalai, S. J. Bograd, R. B. Griffis, H. Kim, A. Mariotti, M. Merrifield and R. Rykaczewski, 2020: Seasonal-to-interannual prediction of North American

- coastal marine ecosystems: Forecast methods, mechanisms of predictability, and priority developments. *Progress in Oceanography*, **183**, 102307.
- Gopalakrishnan, G., A. C. Subramanian, A. J. Miller, H. Seo and D. Sengupta, 2020: Estimation and prediction of the upper ocean circulation in the Bay of Bengal. *Deep-Sea Research II*, **172**, 104721.
- Hell, M. C., S. Gille, B. Cornuelle, A. J. Miller, P. D. Bromirski and A. D. Crawford, 2020: Estimating Southern Ocean storm positions with seismic observations. *Journal of Geophysical Research-Oceans*, **125**, e2019JC015898.
- Amaya, D. J., A. J. Miller, S.-P. Xie and Y. Kosaka, 2020: Physical drivers of the summer 2019 North Pacific marine heatwave. *Nature Communications*, **11**, 1903.
- Schmidt, D. F., D. J. Amaya, K. M. Grise and A. J. Miller, 2020: Impacts of shifting subtropical highs on the California and Canary Current Systems. *Geophysical Research Letters*, **47**, e2020GL088996.
- Amaya, D. J., M. A. Alexander, A. Capotondi, C. Deser, K. B. Karnauskas, A. J. Miller and N. J. Mantua, 2021: Are long-term changes in mixed layer depth influencing North Pacific marine heatwaves? *Bulletin American Meteorol. Soc.*, **102**, S59-S66.
- Ajoku, O., A. J. Miller and J. R. Norris, 2021: Impacts of aerosols produced by biomass burning on the Stratocumulus-to-Cumulus Transition in the equatorial Atlantic. *Atmospheric Science Letters*, **22**, e1025.
- Sun, R., A. C. Subramanian, B. D. Cornuelle, M. R. Mazloff, A. J. Miller, F. M. Ralph, H. Seo and I. Hoteit, 2021: The role of air-sea interactions in Atmospheric Rivers: Case studies using the SKRIPS regional coupled model. *Journal of Geophysical Research-Atmospheres*, **126**, e2020JD032885.
- Zhang, Y. S. Yu, D. J. Amaya, Y. Kosaka, S. M. Larson, X. Wang, J.-C. Yang, M. F. Stuecker, S.-P. Xie, A. J. Miller and X. Lin, 2021: Pacific Meridional Modes without Equatorial Pacific influence. *Journal of Climate*, **34** 5285-5301.
- Pezzi, L. P., R. B. de Souza, M. F. Santini, A. J. Miller, J. T. Carvalho, C. K. Parise, M. F. Quadro, E. B. Rosa, F. Justino, U. A. Sutil, M. J. Cabrera, A. V. Babanin, J. Voermans, E. L. Nascimento, R. C. M. Alves, G. B. Munchow and J. Rubert, 2021: Oceanic eddy-induced modifications to air-sea heat and CO₂ fluxes in the Brazil-Malvinas Confluence. *Scientific Reports*, **11**, 10648.
- Kumar, N., J. A. Lerczak, T. Xu, A. F. Waterhouse, J. Thomson, E. J. Terrill, C. Swann, S. H. Suanda, M. S. Spyrell, P. B. Smit, A. Simpson, R. Romeiser, S. D. Pierce, T. de Paolo, A. Palóczy, A. O'Dea, L. Nyman, J. N. Moum, M. Moulton, A. M. Moore, A. J. Miller, R. S. Mieras, S. T. Merrifield, K. Melville, J. M. McSweeney, J. MacMahan, J. A. MacKinnon, B. Lund, E. Di Lorenzo, L. Lenain, M. Kovatch, T. T. Janssen, S. Haney, M. C. Haller, K. Haas, D. J. Grimes, H. C. Graber, M. K. Gough, D. A. Fertitta, F. Feddersen, C. A. Edwards, W. Crawford, J. Colosi, C. C. Chickadel, S. Celona, J. Calantoni, E. F. Braithwaite III, J. Becherer, J. A. Barth and S. Ahn, 2021: The Inner-Shelf Dynamics Experiment. *Bulletin of the American Meteorological Society*, **102**, E1033-E1063.
- Cordero-Quiros, N., A. J. Miller, Y. Pan, L. Balitaan, E. Curchitser and R. Dussin, 2022: Physical-ecological response of the California Current System to ENSO events in ROMS-NEMURO. *Ocean Dynamics*, **72**, 21-36.
- Sun, R. A. B. Villas Boas, A. C. Subramanian, B. D. Cornuelle, M. R. Mazloff, A. J. Miller, S. Langodan and I. Hoteit, 2022: Focusing and defocusing of tropical cyclone

- generated waves by ocean current refraction. *Journal of Geophysical Research-Oceans*, 127, e2021JC018112.
- Pezzi, L. P., M. F. L. Quadro, J. A. Lorenzzetti, A. J. Miller, E. B. Rosa, L. N. Lima and U. A. Sutil, 2022: The effect of Oceanic South Atlantic Convergence Zone episodes on regional SST anomalies: The roles of heat fluxes and upper-ocean dynamics *Climate Dynamics*, **59**, 2041-2065.
- Zhang, Y., S. Yu, S.-P. Xie, D. J. Amaya, Q. Peng, Y. Kosaka, X. Lin, J.-C. Yang, S. M. Larson, A. J. Miller and L. Fan, 2022: Role of ocean dynamics in Equatorial Pacific decadal variability. *Climate Dynamics*, **59**, 2517-2529.
- Ducklow, H., M. Cimino, K. O. Denton, W. R. Fraser, R. R. Hopcroft, R. Ji, A. J. Miller, M. D. Ohman and H. M. Sosik, 2022: Marine pelagic ecosystem responses to climate variability and change. *BioScience*, **72**, 827-850.
- Di Lorenzo, E., T. Xu, Y. Zhao, M. Newman, A. Capotondi, S. Stevenson, D. J. Amaya, B.T. Anderson, R. Ding, J.C. Furtado, Y. Joh, G. Liguori, J. Lou, A. J. Miller, G. Navarra, N. Schneider, D. J. Vimont, S. Wu and H. Zhang, 2023: Modes and mechanisms of Pacific decadal-scale variability. *Annual Review of Marine Science*, **15**, 249-75.
- Pezzi, L. P., M. F. L. Quadro, E. B. Souza, A. J. Miller, V. B. Rao, E. B. Rosa, M. F. Santini, A. Bender, R. B. Souza, M. J. Cabrera, C. K. Parise, J. T. Carvalho, L. S. Lima, M. R. L. de Quadros, D. M. Nehme and J. F. Antonio, 2023: Oceanic SACZ produces an abnormally wet 2021/2022 rainy season in South America. *Scientific Reports*, **13**, 1455.
- Beaudin, E., E. Di Lorenzo, A. J. Miller, H. Seo and Y. Joh, 2023: Impact of extratropical Northeast Pacific SST on U.S. West Coast precipitation. *Geophysical Research Letters*, **50**, e2022GL102354.
- Ghosh, S., A. J. Miller, A. C. Subramaniam, R. Bhatla and S. Das, 2023: Signals of northward propagating Monsoon Intraseasonal Oscillations (MISOs) in the RegCM4.7 CORDEX-CORE simulation over South Asia domain. *Climate Dynamics*, **61**, 3237-3251.
- Sun, R., A. Cobb, A. B. Villas Boas, S. Langodan, A. C. Subramanian, M. R. Mazloff, B. D. Cornuelle, A. J. Miller, R. Pathak and I. Hoteit, 2023: Waves in SKRIPS: WaveWatch III coupling implementation and a case study of cyclone Mekunu. *Geoscientific Model Development*, **16**, 3435-3458.
- DeFlorio, M. J., A. Sengupta, C. M. Castellano, J. Wang, Z. Zhang, A. Gershunov, K. Guirguis, R. Luna Nino, R. E. S. Clemesha, M. Pan, M. Xiao, B. Kawzenuk, P. B. Gibson, W. Scheftic, P. D. Broxton, M. B. Switanek, J. Yuan, M. D. Dettinger, C. W. Hecht, D. R. Cayan, B. D. Cornuelle, A. J. Miller, J. Kalansky, L. Delle Monache, F. M. Ralph, D. E. Waliser, A. W. Robertson, X. Zeng, D. G. DeWitt, J. Jones and M. L. Anderson, 2024: From California's extreme drought to major flooding: Evaluating and synthesizing experimental seasonal and subseasonal forecasts of landfalling atmospheric rivers and extreme precipitation during Winter 2022-2023. *Bulletin of the American Meteorological Society*, **105**, E84-E104.
- Cui, X., D. Yang, A. J. Miller, B. Yin and J. Yang, 2024: Trough-scale slope countercurrent over the East China Sea shelf break driven by upwelling divergence. *Journal of Geophysical Research-Oceans*, **129**, e2023JC020743.

- Sun, R., S. Sanikommu, A. C. Subramanian, M. R. Mazloff, B. D. Cornuelle, G. Gopalakrishnan, A. J. Miller and I. Hoteit, 2024: Enhanced regional ocean ensemble data assimilation through atmospheric coupling in the SKRIPS model. *Ocean Modelling*, **191**, 102424.
- Cho, A., H. Song, H. Seo, R. Sun, M. R. Mazloff, A. C. Subramanian, B. D. Cornuelle, and A. J. Miller, 2025: Dynamic and thermodynamic coupling between the atmosphere and ocean near the Kuroshio current and extension system. *Ocean Modelling*, **194**, 102496.

SCIENTIFIC SERVICE:

Associate Editor, *Atmospheric Science Letters* (Royal Meteorological Soc.), 2000-present
 Associate Editor, *Journal of Geophysical Research-Oceans* (AGU), 2007-2013
 Special Issue Editorial Board, *Dynamics of Atmospheres and Oceans*, 2010-2011
 Special Issue Editorial Board, *Journal of Oceanography* (The Oceanographic Society of Japan), 2002
 Advisory Board, *The Sea, Volume 17: The Science of Ocean Prediction*, 2013-2015

Reviewer for *Journal of Physical Oceanography*, *Journal of Climate*,
Journal of Geophysical Research-Oceans, *Geophysical Research Letters*,
Journal of Geophysical Research-Atmospheres, *Tellus-A*, *Tellus-B*,
Dynamics of Atmospheres and Oceans, *Journal of the Atmospheric Sciences*,
Fisheries Oceanography, *Journal of Marine Systems*, *Progress in Oceanography*,
Oceanologica Acta, *EOS*, *Deep-Sea Research*, *Conservation Biology*,
Canadian Journal of Fisheries and Aquatic Sciences, *Journal of Marine Research*,
International Journal of Remote Sensing, *Journal of Oceanography*, *Oceanography*,
Bulletin of the American Meteorological Society, *Climate Dynamics*,
Atmosphere-Ocean, *Journal of Oceanic and Atmospheric Technology*,
CalCOFI Reports, *Atmospheric Research*, *Monthly Weather Review*,
International Journal of Climatology, *ICES Journal of Marine Science*,
Continental Shelf Research, *Proceedings of the National Academy of Sciences*,
Journal of Coastal Research, *Ocean Science*, *Marine Geodesy*, *Fish and Fisheries*,
PLoS ONE, *Limnology and Oceanography: Fluids and Environments*,
Ocean Modelling, *Nature Scientific Reports*, *Marine and Freshwater Research*,
Journal of Sea Research, *Science Advances*, *Frontiers in Marine Science*, *Ocean Dynamics*, *International Journal of Climatology*, *Ecosystems*, United Nations University Press and Cambridge University Press.

Reviewer for NSF, NOAA, NASA, PFRP, NPRB, California Sea Grant, Oregon Sea Grant, GoMRI, Louisiana Board of Regents, University of Wisconsin-Madison, CEC, IRI, NCAR, EVOSTC, CRDF, NERC (UK), Marsden Fund (New Zealand), Marine National Facility (Australia), ARC (Australia), OSR (Netherlands), AXA (EU), BSF (Israel-USA), Chilean National Science and Technology Commission, Partnership for Advanced Computing in Europe (PRACE), Israel's Ministry of Innovation, Science and Technology, KAUST, and Kuwait Foundation for the Advancement of Sciences

Panelist for NSF Ocean Sciences Division, NSF GLOBEC, NSF Arctic, NOAA CLIVAR, NASA MAP, NOAA-NSF CAMEO, GoMRI “Theme 1”, and University of Wisconsin “Research Growth Initiative”

Panelist for NASA Postdoctoral Program Secondary Review (2023, 2024, 2025)

Program Review Panel Member for NOAA Joint Institute for the Study of the Atmosphere and Ocean (JISAO - University of Washington), NOAA Joint Institute for Marine Research (JIMAR - University of Hawaii), NOAA Physical Systems Laboratory, Oceanography and Marine Geosciences of NRL-Stennis Space Center, and NSF Life Cycle Objectives for Ocean Observing Initiative Cyberinfrastructure Implementing Organization

Member, American Meteorological Society Committee on Climate Variability and Change (2022-present)

Member, American Meteorological Society Committee on Coastal Environment (2013-2019)

Reichelderfer Award Committee, American Meteorological Society (Chair, 2018; Member, 2016, 2017)

Member, American Geophysical Union Africa Award Committee (2022, 2024, 2025)

Member, CLIVAR Research Focus Group on “Eastern Boundary Upwelling Systems” (2015-present)

Member, NOAA MAPP “Marine Prediction Task Force” (2017-2021)

Member, U.S. CLIVAR Science Steering Committee (2015-2016)

Co-Chair, U.S. CLIVAR Panel on Phenomena, Observations and Synthesis (2015-2016)

Member, U.S. CLIVAR Panel on Phenomena, Observations and Synthesis (2013-2016)

Member, U.S. GLOBEC Scientific Steering Committee (2004-2012)

Member, VAMOS Ocean-Cloud-Atmosphere-Land Study (VOCALS) Modeling Group (2004-2006)

Member, PICES Evaluations of Climate Change Projections Working Group (2006-2010)

Member, Bering Ecosystem Study (BEST) Scientific Steering Committee (2005-2007)

Member, U.S. CLIVAR Pacific Sector Implementation Panel (2002-2005)

Member, Overview Advisory Group, GLOBEC Climate Impacts on Open Ocean Top Predators Program (2003-2004)

Co-Organizer: Surfside Climate Workshop, SIO:

“California Current Modeling: Do Observations Corroborate the Modeled Phenomena?” (1999)

“Climate Forcing of Oceanic Ecosystems: Are Significant Biological Feedbacks Possible on Interdecadal Timescales?” (2001)

Co-Organizer: Climate-Culture Workshop, SIO-UCSD Department of Anthropology:

“Impacts of El Nino Climate Variability on Cultural Development in Peru and the Andes” (2003)

Co-Organizer: NOAA-CIFAR Synthesis Workshop:

“The Climate Regime Shift Hypothesis and the Decline of the Steller Sea Lion Population” (2003)
 Co-Organizer: SIO-UCSD Department of Music Workshop: “The Confluence of Art, Music, Science and the Environment” (2006)
 Organizer: “Hendershott Symposium” Career Recognition Event (2007)
 Co-Organizer: “LTER Cross-Site Regional Ocean Modeling Workshop” (2011)
 Co-Organizer and Acting Workshop Chair, “GLOBEC/PICES/ICES Workshop on Forecasting Ecosystem Indicators with Process-Based Models (ECOFOR)” (2012)
 Co-Organizer, U.S. CLIVAR ENSO Ecosystem Forecasting Workshop, SIO (2016)
 Steering Committee, “2014-16 Pacific Anomalies Symposia”, La Jolla (2015) and Seattle (2016)
 Co-Organizer, “AORI-SIO Joint Symposium”, La Jolla, CA, (2016)
 Co-Coordinator, “1st Meridional Modes Workshop”, University of Wisconsin, Madison, WI, (2016)
 Co-Coordinator, “2nd Meridional Modes Workshop”, Ohio State University, Columbus, OH, (2019)
 Co-Organizer, “Excellence and Equity are Not Mutually Exclusive: A Two-Part SIO Black History Month Seminar”, La Jolla, CA, (2021)
 Co-Organizer, "Oahu Workshop on Ocean-Atmosphere Interactions and Climate Predictability", University of Hawaii, Honolulu, HI, (2022)
 Scientific Organizing Committee, “Daily to Decadal Ecological Forecasting along North American Coastlines Workshop”, Woods Hole (2022)

Advising Scientist, “Weather on Steroids: The Art of Climate Change” Exhibition

Numerous invited seminars, keynote lectures, and talks at universities, research institutions, conferences, and workshops around the world

Interviewed by numerous local, national, and international newspaper, magazine, radio, and television reporters

UNIVERSITY SERVICE:

Head of Oceans and Atmosphere Section, 2015-2020

Director of CASPO, 2008-2009, 2010-2015

Associate Director of CASPO, 2007-2008, 2009-2010

Associate Director of CRD, 2000-2007

SIO Committee on Academic Personnel, 1998-2001, 2005-2008

Administrator, SIO Climate Computing Facility, 2000-2011

SIO CRD/CASPO Seminar Series Coordinator, 1998-present

Birch Aquarium/Museum Panel, 2005-06, 2007-2012

SIO Staff Council nominations committee, 2001

Chair, SIO Alumni Network Leadership Team, 2006-07

SIO Heritage Committee, 2008-present, Chair, 2015-2021

SIO Committee on Committees, 2009-2011, 2023-present

SIO Art Committee, 2024-present

Frieman Prize Committee, 2011
Chair, Keeling Memorial Lecture Committee, 2013-2020
Chair, SIO Institutional Post-doctoral Fellowship Selection Committee, 2009, 2010
Chair, Ritter Memorial Fellowship Selection Committee, 2017, 2018, 2019, 2020
SIO Editorial and Publications Committee, 2014-2018
Scripps Research and Academics Committee (*ex officio*), 2015-2020
Scripps Space Management Committee (*ex officio*), 2015-2020
Scripps Awards Committee (*ex officio*), 2015-2020
UCSD Council of Chairs (*ex officio*), 2015-2020
Supervisor to MSO Anne Footer, 2015-2020 (*ex officio*)
Supervisor to Director of CW3E, Dr. Marty Ralph, 2014-2020 (*ex officio*)
Supervisor to Programmer/Analyst Jack Ritchie, 1990-1992, 2010-2020
Supervisor to Programmer/Analyst Bill Higgins, 1999-01
Supervisor to Programmer/Analyst Martin Olivera, 2001-2011
Supervisor to Assistant Project Scientist Dr. Guillermo Auad, 1999-2011
Supervisor to Assistant Project Scientist Dr Doug Neilson, 1999-2006

IRDAC "Coastal" Assistant Professor Search Committee, 1999-00
COMPAS Researcher (Triple) Search Committee, 2000-03
NHBO MSO Search Committees, 2001-2002, 2004-05
Chair, OA Section Researcher Search Committee, 2005-2006
Dynamic Meteorology and Data Assimilation (Double) Assistant Professor Search Committee, 2007-08
Physical Oceanography and Climate Assistant Professor Search Committee, 2008-09
OA Section "Unfunded Researchers" (Triple) Search Committee Chair, 2011-12
AGAGE Professor Search Committee, 2023-2024
OA Section Researcher Search Committee Chair, 2024

Climate Sciences Admissions Committee Member, 1996-present
SIO "Diversity Admission Committee" Member, 2016-17, 2017-18
Climate Sciences Open House, Coordinator 1999, 2004-11; Participant 2012-18
Climate Sciences Departmental Exam Committee, 1998 (Chair), 03, 06-07, 09-11, 16-17

EDUCATIONAL SERVICE:

Currently Doctoral Advisor to:

Mr. Anthony Wilson, Climate Sciences, SIO (2021-present)

Formerly Doctoral Advisor/Co-Advisor to:

Dr. Emanuele Di Lorenzo, Climate Sciences, SIO (Ph.D. 2003)

Post-doc: SIO/UCSD

Currently: Full Professor, Brown University

Dr. Hyodae Seo, Climate Sciences, SIO (Ph.D. 2007)

Post-doc: NOAA Climate and Global Change Postdoctoral Fellow, UCLA/Hawaii

Currently: Associate Professor, University of Hawaii, Manoa

Dr. Hey-Jin Kim, Climate Sciences, SIO (Ph.D. 2008),

Post-doc: Monterey Bay Aquarium Research Institute Postdoctoral Fellow
 Currently: Private sector

Dr. Hajoon Song, Climate Sciences, SIO (Ph.D. 2011)
 Post-docs: University of California, Santa Cruz, and M.I.T.
 Currently: Associate Professor, Yonsei University, Korea

Dr. Dian Putrasahan, Climate Sciences, SIO (Ph.D. 2012)
 Post-doc: University of Miami
 Currently: Scientist, Max-Planck-Institut für Meteorologie, Hamburg

Dr. Aneesh Subramanian, Climate Sciences, SIO (Ph.D. 2012)
 Post-docs: SIO/UCSD and Oxford University
 Currently: Assistant Professor, University of Colorado

Dr. Linghan Li, Physical Oceanography, SIO (Ph.D. 2013)
 Post-doc: University of Washington and SIO
 Currently: Private Sector

Dr. Lauren Franck, Climate Sciences, SIO (Ph.D. 2013)
 Post-doc: NRC Fellow, Naval Research Laboratory, Washington, DC
 Currently: Scientist, Naval Undersea Warfare Center, Newport, RI

Dr. Nicholas Cavanaugh, Climate Sciences, SIO (Ph.D., 2014)
 Post-doc: Lawrence Berkeley National Laboratory
 Currently: Founder, Sensible, Boulder, CO

Dr. Michael DeFlorio, Climate Sciences, SIO (Ph.D. 2015)
 Post-doc: JPL/Caltech, Pasadena, CA
 Currently: Research Analyst, CW3E, SIO

Dr. Jonathan Eliashiv, Climate Sciences, SIO (Ph.D. 2019)
 Currently: Climate Scientist, Sensible, Denver, CO

Dr. Dillon Amaya, Climate Sciences, SIO (Ph.D. 2019)
 Post-doc: CIRES Postdoctoral Fellow
 Currently: Research Physical Scientist, NOAA PSL, Boulder, CO

Dr. Daniela Faggiani Dias, Climate Sciences, SIO (Ph.D. 2020)
 Post-doc: Colorado State University
 Currently: Assistant Project Scientist, SIO

Dr. Osinachi Ajoku, Climate Sciences, SIO (Ph.D. 2020)
 Post-doc: NCAR ASP Postdoctoral Fellow
 Currently: Assistant Professor, Howard University, Washington, DC

Dr. Meredith Fish, Climate Sciences, SIO (Ph.D. 2020)
 Post-doc: Rutgers University
 Currently: Senior Data Scientist, McKinsey & Company, Denver, CO

Dr. Nathali Cordero Quiros, Climate Sciences, SIO (Ph.D. 2020)
 Post-doc: University of California, Santa Cruz and CICESE, Ensenada
 Currently: Research Analyst, SIO

Dr. Momme Hell, Physical Oceanography, SIO (Ph.D. 2020)
 Post-docs: SIO/UCSD and Brown University
 Currently: Assistant Scientist, WHOI

Dr. Tashiana Osborne, Climate Sciences, SIO (Ph.D. 2021)
 Post-doc: Johns Hopkins University
 Currently: Climate Advisor Fellow (AAAS), USAID, Washington, DC

Masters Advisor to:

Mr. Karl-Erik Paulsson, Physical Oceanography, SIO (2023-present)
Mr. Anito Marcarelli, Climate Science and Policy (2024-present)
Mr. Jack Weil, Climate Sciences, SIO (M.S., 2022)
Ms. Chelsey Nieman, Biodiversity and Conservation, SIO (M.A.S. 2014)
Mr. Ankur Gupta, Climate Sciences, SIO (M.S. 2012)
Mr. Gino Passalacqua, Climate Sciences, SIO (M.S. 2009)

Doctoral Committee Member to:

Dr. Xiang San Liang, Applied Mathematics, Harvard University (Ph.D. 2002)
Dr. Thomas Reichler, Climate Sciences, SIO (Ph.D. 2002)
Dr. Catherine Johnson, Biological Oceanography, SIO (Ph.D. 2003)
Dr. David Field, Biological Oceanography, SIO (Ph.D. 2004)
Mr. Ehecatl Munoz-Mejia, Fisheries Ecology, CIBNOR, La Paz, Mexico, (2002-2005)
Dr. Chih-Hao Zac Hsieh, Biological Oceanography, SIO (Ph.D. 2006)
Dr. Elena Brambilla, Physical Oceanography, SIO (Ph.D. 2006)
Dr. Alex Ruane, Climate Sciences, SIO (Ph.D., 2007)
Dr. Elizabeth Douglass, Physical Oceanography, SIO (Ph.D., 2007)
Dr. Daniel Birch, Physical Oceanography, SIO (Ph.D., 2007)
Mr. Miles Woodard, Climate Sciences, SIO (M.S. 2008, pending submission of thesis)
Dr. Xue Fan, Physical Oceanography, SIO (Ph.D, 2014)
Dr. Ethan Deyle, Biological Oceanography, SIO (Ph.D., 2015)
Mr. Cotton Rockwood, Biological Oceanography, SIO (Ph.D. candidate, 2013-present)
Dr. Sara Sanchez, Climate Sciences, SIO (Ph.D., 2018)
Dr. Weijie Wang, Climate Sciences, SIO (Ph.D., 2017)
Dr. Will Crawford, Ocean Sciences, UC, Santa Cruz (Ph.D., 2017)
Ms. Adi Khen, Marine Biology, SIO (Ph.D. 2022)
Ms. Caroline Lowcher, Physical Oceanography, SIO (Ph.D. 2023)
Mr. Erik Saberski, Biological Oceanography, SIO (Ph.D. 2024)
Ms. Wen-Shu Lin, Climate Sciences, SIO (Ph.D. candidate, 2022-present)

Masters Committee Member to:

Mr. Tony Shiao, Biodiversity and Conservation, SIO (M.A.S. 2013)

Visiting Doctoral Students mentored:

Dr. Anamitra Saha, Civil Engin., Indian Institute of Technology Bombay (2016-2017)
Dr. Daling Li Yi, Phys. Oceanogr., Ocean University of China Qingdao (2016-2018)
Dr. Lin Piao, Meteorology, Peking University (2016-2017)
Dr. Yu Zhang, Phys. Oceanogr., Ocean University of China Qingdao (2017-2019)
Dr. Soumik Ghosh, Geophysics, Banaras Hindu University, India (2019-2020)
Mr. Giacomo Lucidi, Physics of Earth System, University of Bologna, Italy (2019-20)
Ms. Elise Beaudin, Ocean Science and Engineering, Georgia Tech (2021-present)
Mr. Jian Li, Physical Oceanography and Remote Sensing, Zhejiang Uni, (2024-present)

External Ph.D. Thesis Examiner, Griffith University (2009, 2010, 2014, 2015, 2022)

External Ph.D. Thesis Examiner, IIT Bhubaneswar (2021, 2022, 2023)

Postdoctoral researchers mentored:

Dr. Guillermo Auad, Ph.D., Scripps Institution of Oceanography (1995-1999)
Dr. Sutara "Ata" Suanda, Ph.D., Oregon State University (2014-2015)
Dr. Liz Drenkard, Ph.D., MIT-Woods Hole Joint Program (2016-2019)
Dr. Rui Sun, Ph.D., Virginia Tech (2017-2022)
Dr. Xuan "Bill" Cui, Institute of Oceanology, Chinese Academy Sci. (2023-present)

Research Experiences for Undergraduates (REU) Advisor to:

Ms. Emma Nuss, UCSD (2012-13)
Ms. Ana-Patricia Lopez, Environmental Engineering, SDSU (2013-2014)
Ms. Maria Winters, Environmental Engineering, UCSD (2015-2017)
Mr. Nathan Cusson-Nadeau, Environmental Engineering, UCSD (2016-2017)
Ms. Cristina Curiel, Marine Biology, UCSD (2017)
Ms. Sara Ramirez, Environmental Systems, UCSD (2018-2019)
Ms. Yunchun (Pauline) Pan, Applied Mathematics, UCSD (2019-2020)
Mr. Lawrence Balitaan, Oceanic and Atmospheric Science, UCSD (2019)
Mr. Magnus Oddershede, Physics, University of Copenhagen (2022-2023)
Mr. Carlo Makeever, Computer Science, Mesa College (2023)
Mx. Iris Smyrl, Environ. Syst (Ecology, Behavior Evolution), UCSD (2023-present)
Ms. Lana Lubecke, Environmental Systems (Applied Comput. Math.), Caltech (2024)

Summer High School Intern Advisor to:

Ms. Hannah Cohen, Horace Greeley High School, Chappaqua, NY (2018)
Mr. Benjamin Massey, High Tech High North County, San Marcos, CA (2024)

Science Olympiad Event Coach for "Compute This: Ocean-Atmosphere,"

"Oceanography" and "Remote Sensing", University City High School (2005-2008)
National Ocean Science Bowl (NOSB) Science Judge (2013 and 2014)

Participant, "Exploring Ocean Careers Night" at Birch Aquarium (2014-2019)

Founding Member, Stay Cool for Grandkids (2013-present)

Executive Board Member, Keeling Curve Foundation (2025-present)