

## **NIKLAS SCHNEIDER**

July 6, 2017

International Pacific Research Center & Department of Oceanography

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Citizenship: German

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### **EDUCATION**

Ph.D., Oceanography, University of Hawaii at Manoa, May 1992. Dissertation: Sensitivity of the Yoshida jet to the parameterization of vertical mixing. Do easterly winds imply equatorial upwelling? Advisor: Peter Müller.

B.S. equivalent (Vordiplom), Oceanography, Universität Hamburg, Germany, January 1983.

### **PROFESSIONAL EXPERIENCE**

Chair. University of Hawaii at Manoa, School of Ocean and Earth Science and Technology, Department of Oceanography, since July 2017.

Professor of Oceanography. University of Hawaii at Manoa, School of Ocean and Earth Science and Technology, Department of Oceanography, since August 2013.

Associate Professor of Oceanography. University of Hawaii at Manoa, School of Ocean and Earth Science and Technology, Department of Oceanography, October 2002 to July 2013.

Associate Research Oceanographer. University of California, San Diego, Scripps Institution of Oceanography, Climate Research Division, July 2001 to July 2004.

Assistant Research Oceanographer. University of California, San Diego, Scripps Institution of Oceanography, Climate Research Division, July 1995 to June 2001.

Visiting Scientist. Max-Planck-Institut für Meteorologie, Hamburg, Germany, September 1997.

Postgraduate Research Oceanographer. University of California, San Diego, Scripps Institution of Oceanography, Climate Research Division, May 1992 to June 1995.

### **SERVICE**

Member, CLIVAR, ENSO diversity working group, since 2012.

Co-convenor, Air-sea Coupling in Western Boundary Current Regions, 2010 Ocean Science Meeting, 22-26 February 2010, Portland, Oregon.

Co-convenor, 14th Conference on Interactions of the Sea and Atmosphere, American Meteorological Society, January 29 to February 2, 2006, Atlanta Georgia.

Member, CLIVAR US Pacific Implementation Panel, March 2004 to reorganization of US CLIVAR, end of 2004.

Member, American Meteorological Society, Air-Sea Interaction Committee, February 2003 to 2006.

Member, ARCSS-Arctic Natural Science panel, National Science Foundation, April 2008.

## **MEMBERSHIPS**

American Geophysical Union

American Meteorological Society

## **EXTRAMURAL FUNDING**

(Principal investigator (PI) in bold, University of Hawaii PI in italics)

*Schneider, N.*: Collaborative project: Ocean-atmosphere interaction from meso- to planetary-scale: Mechanisms, parameterization, and variability. Department of Energy, Collaboration with **J. Small**, NCAR, September 15, 2011 to September 14, 2017, \$241,876 (U. Hawaii portion).

*Schneider, N.*: Pacific Decadal Variability and Central Pacific Warming El Nino in a Changing Climate. U.S. Department of Energy, collaboration with **E. DiLorenzo**, Georgia Institute of Technology, September 15, 2010 to September 14, 2015, \$200,001 (U. Hawaii portion).

*Schneider, N.*: Collaborative Research: An eddy-resolved ensemble approach to Pacific Ocean decadal variability. National Science Foundation, collaboration with **E. DiLorenzo**, Georgia Institute of Technology, February 2014 to January 2017, \$266,192 (U. Hawaii portion).

*Schneider, N.*: Pacific ocean-atmospheric variability from the frontal to basin scale: A study using satellite vector wind observations. Subcontract to Scripps Institution of Oceanography on collaboration with **S. P. Xie**, National Aeronautics and Space Administration, OVWST, April 2014 to March 2018, \$359,960 (U. Hawaii portion).

***Schneider, N.***: JAMSTEC-IPRC Joint Activities, Theme 3 Mid-Latitude Ocean-Atmosphere Variability. Japan Agency for Marine-Earth Science and Technology, April 2014-March 2017, Yen 80,070,000 (in annual installments, \$ amount depending on exchange rate).

***Qu, T.*** and N. Schneider: Investigating the formation and variability of sea surface salinity maxima using Aquarius measurements combined with in-situ data and results from numerical models. Collaboration with I. Fukumori, JPL. National Aeronautics and Space Administration, May 1, 2012 to April 30, 2016, \$562,624.

*Schneider, N.*: Pacific Decadal Variability and Central Pacific Warming El Nino in a Changing Climate. Collaboration with **E. Di Lorenzo**, Georgia Institute of Technology. U.S. Department of Energy, January 2011 to December 2013, \$200,001.

***McCreary, J. P.***, R. Furue, P. Müller, K. Richards and N. Schneider: Estimating ocean mixing and form drag in the tropical Pacific. Subcontract from Scripps Institution of Oceanography in support of: Detlef Stammer, 'Estimating ocean mixing and form drag in the tropical Pacific', National Aeronautics and Space Administration, February 1, 2010 to January 31, 2013, \$343,161 (U. Hawaii portion).

*Schneider, N.*: Collaborative research: Eddy dynamics and impacts of low-frequency variations in the California Current System. Collaboration with **E. Di Lorenzo**, Georgia Institute of Technology. Special Creativity Extension, National Science Foundation, August 19, 2009 to February 29, 2012, \$189,279.

***Maximenko, N.***, N. Schneider and E. Di Lorenzo: Dynamics of anisotropic mean and time-varying structures of ocean circulation. National Aeronautics and Space Administration, Ocean Surface Topography Science Team, October 1, 2008 to September 30, 2012, \$719,963.

**Schneider, N.** and A. Timmermann: Understanding Annual Cycle ENSO Interactions in Climate Change Simulations. U.S. Department of Energy, Office of Science, October 1, 2007 to September 30, 2010, \$440,725.

**Schneider, N.**: Collaborative Research: Decadal coupled ocean-atmosphere interactions in the North Pacific. With **A. J. Miller**, Scripps Institution of Oceanography, National Science Foundation, March 1, 2007 to February 28, 2010, \$247,512.

**Schneider, N.**: Collaborative research: Eddy dynamics and impacts of low-frequency variations in the California Current System. With **E. Di Lorenzo**, Georgia Institute of Technology. National Science Foundation, March 2006-February 2009, \$193,340.

**Schneider, N.**: Predictability and diagnosis of low frequency climate processes in the Pacific. With **A. J. Miller**, Scripps Institution of Oceanography, U.S. Department of Energy, Office of Science, 09/15/2004 to 09/15/2007, \$150,002.

**Schneider, N.** and E. Yulaeva: Forecasting climate changes over North America from predictions of ocean mixed layer anomalies in the tropical and mid-latitude Pacific. National Oceanic and Atmospheric Administration, Department of Commerce, December 2001 to November 2004 (Spring, 2005), \$281,000.

**Schneider, N.**, T. Barnett, D. Cayan and A. J. Miller: Predictability and diagnosis of low-frequency climate processes in the Pacific. U.S. Department of Energy, Office of Science, June 2001 to May 2004 (no-cost extension to October 2005), \$970,097.

**Miller, A. J.** and N. Schneider: Analysis of decadal variability in the Pacific. National Science Foundation, (renewal), October 2000 to September 2003 (no-cost extension to September 2005), \$497,813.

**Barnett, T. P.**, N. Schneider and A. Gershunov, 1999: Interaction of Regional Climate Modes: A Global Hypermode?. National Science Foundation, May 1999 to April 2002, \$432,300.

**Barnett, T.**, D. Cayan and N. Schneider, 1998: Studies of Decadal Climate Dynamics and Predictability. U.S. Department of Energy, May 1998 to April 2002, \$600,000.

**Schneider, N.** and A. J. Miller: Analysis of decadal variability in the North Pacific. National Science Foundation, October 1997 to September 2000, \$335,000.

**Schneider, N.**, T. Barnett and K. Hill: Sport fish in California waters: Seasonal and interannual distribution and dependence on oceanic temperature. National Oceanic and Atmospheric Administration, June 1997 to November 1999, \$88,400.

**Roads, J.**, T. Barnett, D. Cayan, S. Chen, K. Georgakakos, N. Graham, A. Miller, N. Schneider, R. Somerville, K. Ueyoshi and W. White: Scripps experimental climate prediction center. National Oceanic and Atmospheric Administration, September 1996 to August 1999, \$1,500,000. 67K@lm!t03

## **PUBLICATIONS**

### Refereed Articles

69. Furue, R., K. Takatama, H. Sasaki, N. Schneider, M. Nonaka and B. Taguchi, 2017: Impact of sea-surface salinity in an eddy-resolving semi-global OGCM. *Ocean Modelling*, submitted.
68. Taguchi, B., N. Schneider, M. Nonaka and H. Sasaki, 2017: Decadal variability of upper ocean heat content associated with meridional shifts of western boundary current extensions in the North Pacific. *J. Climate*, accepted.
67. Minobe, S., M. Terada, B. Qiu and N. Schneider: 2017: Western boundary sea-level: A theory, rule of thumb and application to climate models. *J. Phys. Oceanogr.*, **47**, 957-977.

66. <sup>1</sup>Takatama, K. and N. Schneider, 2017: The role of back-pressure in the atmospheric response to surface stress induced by the Kuroshio Current. *J. Atmos. Sci.*, **74**, 597-615.
65. Spall, M. A. and N. Schneider, 2016: Coupled ocean/atmosphere offshore decay scale of cold SST signals along upwelling eastern boundaries. *J. Climate*, **29**, 83178331.
64. Kilpatrick, T., N. Schneider and B. Qiu, 2016: Atmospheric response to a midlatitude SST front: Alongfront winds. *J. Atmos. Sci.*, **73**, 3489-3509.
63. Qu, T., L. Zhang, and N. Schneider, 2016: North Atlantic Subtropical Underwater and its year-to-year variability during the Argo period, *J. Phys. Oceanogr.*, **6**, 1901-1916.
62. 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. *J. Climate*, **29**, 4399-4427.
61. Di Lorenzo, E., G. Liguori, N. Schneider, J. C. Furtado, B. T. Anderson and M. A. Alexander, 2015: ENSO and Meridional Modes: A null hypothesis for Pacific climate variability. *Geophys. Res. Lett.*, **42**, 9440-9448, doi:10.1002/2015GL066281.
60. Schneider, N. and B. Qiu, 2015: The atmospheric response to weak sea surface temperature fronts. *J. Atmos. Sci.*, **72**, 3356-3377, doi:10.1175/JAS-D-14-0212.1.
59. Capotondi, A., A. T. Wittenberg, M. Newman, E. Di Lorenzo, J.-Y. Yu, P. Braconnot, J. Cole, B. Dewitte, B. Giese, E. Guilyardi, F.-F. Jin, K. Karnauskas, B. Kirtman, T. Lee, N. Schneider, Y. Xue, and S.-W. Yeh, 2015: Understanding ENSO Diversity. *Bull. Amer. Meteor. Soc.*, **96**, 921–938. doi: <http://dx.doi.org/10.1175/BAMS-D-13-00117.1>
58. Furue, R., Y. Jia, J. P. McCreary, N. Schneider, K. J. Richards, P. Müller, B. D. Cornuelle, N. M. Avellaneda, D. Stammer, C. Liu, and A. Köhl, 2015: Impacts of regional mixing on the temperature structure of the equatorial Pacific Ocean. Part 1: Vertically uniform vertical diffusion. *Ocean Modelling*, **91**, 91-111.
57. Taguchi, B. and N. Schneider, 2014: Origin of decadal-scale, eastward-propagating heat content anomalies in the North Pacific. *J. Climate*, **27** (20), 7568-7586.
56. Davis, A., E. Di Lorenzo, H. Luo, A. Belmadani, N. Maximenko, O. Melnichenko and N. Schneider, 2014: Mechanisms for the emergence of ocean striations in the North Pacific. *Geophys. Res. Lett.*, **41**, 948-953.
55. <sup>2</sup>Stein, K. J., A. Timmermann, N. Schneider, F.-F. Jin and M. Stuecker, 2014: ENSO seasonal synchronization theory. *J. Climate*, **27**, 5285–5310.
54. Qiu, B., S. Chen, N. Schneider and B. Taguchi, 2014: A coupled decadal prediction of the dynamic state of the Kuroshio Extension system. *J. Climate*, **27**, 1751-1764.
53. <sup>2</sup>Kilpatrick, T. M. S., N. Schneider and B. Qiu, 2014: Boundary layer convergence induced by strong winds across a midlatitude SST front. *J. Climate*, **27**, 1698-1718.
52. <sup>2</sup>Katsura, S., E. Oka, B. Qiu and N. Schneider, 2013: Formation and Subduction of North Pacific Tropical Water and Their Interannual Variability. *J. Phys. Oceanogr.*, **43**, 2400–2415.
51. Belmadani, A., N. A. Maximenko, J. P. McCreary, R. Furue, O. V. Melnichenko, N. Schneider, E. Di Lorenzo, 2013: Linear wind-forced beta-plumes with application to the Hawaiian Lee Countercurrent. *J. Phys. Oceanogr.*, **43**, 2071-2094.

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<sup>1</sup>Postdoc paper

<sup>2</sup>Student paper

50. Widlansky, M. J., A. Timmermann, K. Stein, S. McGregor, N. Schneider, M. H. England, M. Lengaigne and W. Cai, 2013: Changes in South Pacific rainfall bands in a warming climate. *Nature Clim. Change*, **3**, 417-423, doi:10.1038/nclimate1726.
49. Sasaki, Y. N., S. Minobe and N. Schneider, 2013: Decadal response of the Kuroshio Extension jet to Rossby waves: Observation and thin-jet theory. *J. Phys. Oceanogr.*, **43**, 442-456.
48. Weijer, W., E. Munoz, N. Schneider and F. Primeau, 2013: Pacific decadal variability: Paced by Rossby basin modes? *J. Climate*, **26** 1445-1456.
47. Park, J.-H., S.-I. An, S.-W. Yeh and N. Schneider, 2012: Quantitative assessment of the climate components driving the Pacific Decadal Oscillation in Climate Models. *Theoretical and Applied Climatology*, DOI: 10.1007/s00704-012-0730-y, 1-15.
46. McGregor, S., A. Timmermann, N. Schneider, M. F. Stuecker and M. H. England, 2012: The effect of the South Pacific Convergence Zone on the termination of El Niño events and the meridional asymmetry of ENSO. *J. Climate*, **25**, 5566-5586.
45. Chang, C.-H., S.-P. Xie, N. Schneider, B. Qiu, J. Small, W. Zhuang, B. Taguchi, H. Sasaki and X. Lin, 2011: Eddy formation and propagation in the East Pacific warm pool: Role of subseasonal variability in Central American wind jets. *J. Geophys. Res.*, **117**, C10001, DOI: 10.1029/2011JC007315.
44. Furtado, J. C., E. Di Lorenzo, B. T. Anderson and N. Schneider, 2011: Linkages between the North Pacific Oscillation and Central Tropical Pacific SSTs at low frequencies. *Climate Dynamics*, **39**, 2833-2846..
43. <sup>2</sup>Stein, K., A. Timmermann and N. Schneider, 2011: Phase synchronization of the El Niño-Southern Oscillation with the annual cycle. *Phys. Rev. Lett.*, **107**, 128501.
42. <sup>1</sup>Sasaki, Y. and N. Schneider, 2011: Interannual to decadal Gulf Stream variability in an eddy-resolving ocean model. *Ocean Modelling*, **39**, 209–219.
41. Furtado, J. C., E. Di Lorenzo, N. Schneider, N. Bond and J. Overland, 2011: North Pacific Decadal Variability and climate change in the IPCC AR4 Models. *J. Climate*, **24**, 12, 3049–3067.
40. <sup>1</sup>Sasaki, Y. and N. Schneider, 2011: Decadal shifts of the Kuroshio Extension jet: Application of thin-jet theory. *J. Phys. Oceanogr.*, **41**, 979–993.
39. <sup>2</sup>Kilpatrick, T., N. Schneider and E. Di Lorenzo, 2011: Generation of low-frequency spiciness variability in the thermocline. *J. Phys. Oceanogr.*, **41**, 2, 365–377.
38. Chen, J., T. Qu, Y. Sasaki and N. Schneider, 2010: Anti-correlated variability in subduction rate of the western and eastern North Pacific Oceans identified by an eddy-resolving ocean GCM. *Geophys. Res. Lett.*, **37**, L23608, doi:10.1029/2010GL045239.
37. Di Lorenzo, E., K. M. Cobb, J. C. Furtado, N. Schneider, B. Anderson, A. Bracco, M. A. Alexander and D. Vimont, 2010: Central Pacific El Niño and decadal climate change in the North Pacific, *Nature Geoscience*, **3**, 11, 762–765.
36. <sup>2</sup>Stein, K., N. Schneider, A. Timmermann and F.-F. Jin, 2010: Seasonal synchronization of ENSO events in a linear stochastic model. *J. Climate*, **23**, 21, 5629–5643.
35. Taguchi, B., B. Qiu, M. Nonaka, H. Sasaki, S.-P. Xie and N. Schneider, 2010: Decadal variability of the Kuroshio Extension: Mesoscale eddies and recirculations. *Ocean Dyn.*, **60**, 3, 673–691.

34. Melnichenko, O., N. Maximenko, N. Schneider and H. Sasaki, 2010: Quasi-stationary striations in basin-scale oceanic circulation: vorticity balance from observations and eddy-resolving model. *Ocean Dyn.*, **60**, 3, 653–666.
33. <sup>1</sup>Sasaki, Y. N., N. Schneider, N. Maximenko and K. Lebedev, 2010: Observational evidence for propagation of decadal spiciness anomalies in the North Pacific. *Geophys. Res. Lett.*, **37**, L07708, doi:10.1029/2010GL042716.
32. Di Lorenzo, E., J. Fiechter, N. Schneider, A. Bracco, P. J. S. Franks, S. J. Bograd, A. M. Moore, A. Thomas, W. Crawford, A. Peña and A. Herman, 2009: Nutrient and salinity decadal variations in the central and eastern North Pacific. *Geophys. Res. Lett.*, **36**, L14601, doi:10.1029/2009GL038261.
31. Ceballos, L. I., E. Di Lorenzo, C. D. Hoyos, N. Schneider and B. Taguchi, 2009: North Pacific Gyre oscillation synchronizes climate variability in the eastern and western boundary current systems. *J. Climate*, **22**, (19), 5163–5174.
30. Chhak, K. C., E. Di Lorenzo, N. Schneider and P. Cummins, 2009: Forcing of low-frequency ocean variability in the Northeast Pacific. *J. Climate*, **22**, 1255–1276.
29. Sasaki, Y. N., S. Minobe, N. Schneider, T. Kagimoto, M. Nonaka and H. Sasaki, 2008: Decadal sea level variability in the South Pacific in a global eddy-resolving ocean model hindcast. *J. Phys. Oceanogr.*, **38**(8), 1731-1747.
28. Di Lorenzo E., N. Schneider, K. M. Cobb, K. Chhak, P. J. S. Franks, A. J. Miller, J. C. McWilliams, S. J. Bograd, H. Arango, E. Curchister, T. M. Powell and P. Rivere, 2008: North Pacific Gyre Oscillation links ocean climate and ecosystem change. *Geophys. Res. Lett.*, **35**, L08607, doi:10.1029/2007GL032838.
27. Qiu, B., N. Schneider and S. Chen, 2007: Coupled decadal variability in the North Pacific: An observationally-constrained idealized model. *J. Climate*, **20**, 3602–3620.
26. Taguchi, B., S.-P. Xie, N. Schneider, M. Nonaka, H. Sasaki and Y. Sasai, 2007: Decadal Variability of the Kuroshio Extension: Observations and an eddy-resolving model hindcast. *J. Climate*, **20**, 2357–2377.
25. Potemra, J. T., and N. Schneider, 2007: Interannual variations in Indonesian throughflow transport. *J. Geophys. Res.*, **112**, C05035, doi:10.1029/2006JC003808.
24. Potemra, J. T., and N. Schneider, 2007: Influence of low-frequency Indonesian Throughflow transport on temperatures in the Indian Ocean in a coupled model. *J. Climate*, **20**, 1339–1352, doi:10.1175/JCLI4146.1.
23. Huang, B., V. Mehta and N. Schneider, 2005: Oceanic response to idealized net atmospheric freshwater in the Pacific at the decadal time scale. *J. Phys. Oceanogr.*, **35**, 2467-2486.
22. Schneider, N., and B. D. Cornuelle, 2005: The forcing of the Pacific Decadal Oscillation. *J. Climate*, **18**, 4355-4373.
21. Schneider, N., E. Di Lorenzo and P. P. Niiler, 2005: Salinity variations in the Southern California Current. *J. Phys. Oceanogr.*, **35**, 1421-1436.
20. Di Lorenzo, E., A. J. Miller, N. Schneider and J. C. McWilliams, 2005: The warming of the California Current: Dynamics and ecosystem implications. *J. Phys. Oceanogr.*, **35**, 336–362.
19. Schneider, N., 2004: The response of tropical climate to the equatorial emergence of spiciness anomalies. *J. Climate*, **17**, 1083-1095.

18. 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. *Bull. Am. Met. Soc.*, **84**, 617-633.
17. Schneider, N., A. J. Miller and D. W. Pierce, 2002: Anatomy of North Pacific decadal variability. *J. Climate*, **15**, 586-605.
16. Yulaeva, E., N. Schneider, D. W. Pierce and T. Barnett, 2001: Modeling of North Pacific climate variability forced by oceanic heat fluxes anomalies. *J. Climate*, **14**, 4027-4046.
15. Pierce, D. W., T. P. Barnett, N. Schneider, R. Saravanan, D. Dommehget and M. Latif, 2001: The role of ocean dynamics in producing decadal climate variability in the North Pacific. *Clim. Dyn.*, **18**, 51-70.
14. Schneider, N. and A. J. Miller, 2001: Predicting western North Pacific ocean climate. *J. Climate*, **14**, 3997-4002.
13. Gershunov, A., N. Schneider and T. Barnett, 2001: Low frequency modulation of ENSO-Indian Monsoon rainfall relationship: Signal or noise? *J. Climate*, **14**, 2486-2492.
12. Miller, A. J. and N. Schneider, 2000: Interdecadal climate regime dynamics in the North Pacific Ocean: Theories, observations and ecosystem impacts. *Prog. Oceanogr.*, **47**(2-4), 355-379.
11. Schneider, N., 2000: A decadal spiciness mode in the tropics. *Geophys. Res. Lett.*, **27**, 257-260.
10. Miller, A. J., J. C. McWilliams, N. Schneider, J. S. Allen, J. A. Barth, R. C. Beardsley, 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: Purposes, achievements and aspirations. *EOS Trans. AGU*, **80**, 533ff.
9. Barnett, T. P., D. W. Pierce, R. Saravanan, N. Schneider, D. Dommehget and M. Latif, 1999: Origins of the midlatitude Pacific decadal variability. *Geophys. Res. Lett.*, **26**, 1453-1456.
8. Schneider, N., S. Venzke, A. J. Miller, D. W. Pierce, T. P. Barnett, C. Deser and M. Latif, 1999: Pacific thermocline bridge revisited. *Geophys. Res. Lett.*, **26**, 1329-1332.
7. Schneider, N., A. J. Miller, M. A. Alexander and C. Deser, 1999: Subduction of decadal north Pacific temperature anomalies: Observations and dynamics. *J. Phys. Oceanogr.*, **29**, 1056-1070.
6. Schneider, N., 1998: The Indonesian throughflow and the global climate system. *J. Climate*, **11**, 676-689.
5. Schneider, N. and T. Barnett, 1997: Indonesian throughflow in a coupled general circulation model. *J. Geophys. Res.*, **102**, 12,341-12,358.
4. Schneider, N., T. Barnett, M. Latif and T. Stockdale, 1996: Warm pool physics in a coupled GCM. *J. Climate*, **9**, 219-239.
3. Schneider, N. and T. Barnett, 1995: The competition of fresh water and radiation in forcing the ocean during El Niño. *J. Climate*, **8**, 980-992.
2. Schneider, N. and P. Müller, 1994: Sensitivity of the surface equatorial ocean to the parameterization of vertical mixing. *J. Phys. Oceanogr.*, **24**, 7, 1623-1640.

1. Schneider, N. and P. Müller, 1990: The meridional and seasonal structures of the mixed-layer depth and its diurnal amplitude observed during the Hawaii-to-Tahiti Shuttle experiment. *J. Phys. Oceanogr.*, **20**, 1395–1404.

Number of citations: 2708, h-index: 28 (source: Web of Science, 11/2/2016).

#### Nonrefereed Contributions

1. Qiu, B., S. Chen and N. Schneider, 2016: Inter-decadal modulations in the dynamical state of the Kuroshio Extension system: 1905-2015. *CLIVAR Exchanges*, **69**, No. 1, 6-8.

#### Technical Reports

3. Hill, K. T. and N. Schneider, 1999: Historical Logbook Databases from California's Commercial Passenger Fishing Vessel (Partyboat) Fishery, 1936-1997. Scripps Institution of Oceanography Reference Series, No. 99-19, 54 pp.
2. Davis, R. E., W. S. Kessler, R. Lukas, R. A. Weller, D. W. Behringer, D. R. Cayan, D. B. Chelton, C. Erikson, S. Esbensen, R. A. Fine, I. Fukumori, M. C. Gregg, E. Harrison, G. C. Johnson, T. Lee, N. J. Mantua, M. J. McPhaden, J. C. McWilliams, A. J. Miller, H. Mitsudera, P. P. Niiler, B. Qiu, D. Raymond, D. Roemmich, D. L. Rudnick, N. Schneider, P. S. Schopf, D. Stammer, L. Thompson and W. B. White, 1999: The Design of PBECs: Implementation plan for the Pacific Basin Extended Climate Study. 103 pp.
1. Schneider, N., S. Venzke, A. J. Miller, D. W. Pierce, T. P. Barnett, C. Deser and M. Latif, 1998: Decadal coupling of the northern mid-latitude and equatorial Pacific Ocean via the thermocline? Report No. 273, Max-Planck-Institut für Meteorologie, Hamburg, Germany, 10 pp.

## **TEACHING**

Introduction to physical oceanography (co-taught with E. Firing, Fall 2005-2010, Fall 2012-2014, co-taught with M. Merrifield and K. Richards, Fall 2016)

Large-scale air-sea interaction (co-taught with R. Lukas, Fall 2005, 2008, 2010; co-taught with A. Timmermann, Spring 2014)

Informal class on classical rotating tank experiments in geophysical fluid dynamics (Fall 2010, Spring 2011-2012)

## **ADVISING**

### *Postdocs:*

Kohei Takatama (2012 to 2017)

Matthew Widlansky (2010 to 2012, co-advising with A. Timmermann)

Yoshi N. Sasaki (2008 to 2010)

### *Students:*

Stacey Naeemullah (Committee Chair; M.S., since 2014)

Michael Grissom (Committee chair; M.S., 2013)

Thomas Kilpatrick (Committee chair; M.S. 2009, Ph.D. 2013)

Karl Stein (Committee co-chair; M.S. 2008, Ph.D. 2013)

Xiao Zhou (Committee member, Ph.D. since 2016)

Michelle Tigchelaar (Committee member, Ph.D. 2015)

Yunjie Rao (Committee member, Ph.D., since 2012)

Licheng Geng (Committee member, Ph.D.)

Lei Zhang (Committee member; Ph.D., 2014)

Marlene Klockmann (Committee member; M.S. University of Hamburg, 2012)

Jian Ma (Committee member; Ph.D. 2012)

Baojiang Xiang (Committee member; Ph.D. 2011)

Chueh-Hsin Chang (Committee member; Ph.D. 2009)

Victoria Futch (Committee member; M.S. 2009)

Ching-Hsi Nan (Committee member; M.S. 2009)

Jason Patla (Committee member; Ph.D. 2008)

Laurie Menviel (Committee member; Ph.D. 2008)

Bunmei Taguchi (Committee member; Ph.D. 2006)

Hideki Okajima (Committee member; Ph.D. 2006)

Natalie Kwa (Co-chair; Global Environmental Science, senior thesis, 2011)