Andrew M. Chiodi, C.V

Education

- **Ph.D.** Physical Oceanography. University of Washington, Seattle, WA. *Dissertation:* Southern hemisphere subtropical air-sea interaction (Jun. 2006)

- **M.S.** Physical Oceanography. University of Washington, Seattle, WA. *Thesis:* Fjord exchange flow observed with Autonomous Underwater Vehicles (Mar. 2002)

- **B.S.** with distinction in Physics and a Minor in Spanish. The Ohio State University, Columbus, OH. *Thesis:* Light-Emitting-Diodes made from Magnesium Phthalocyanine (Aug. 1997)

Professional Experience

- **Senior Research Scientist**: University of Washington and NOAA Pacific Marine Environmental Laboratory, Seattle, WA. (Oct. 2019 - present)

  Research foci: Air-sea interaction and climate variability including mechanisms for the El Niño-Southern Oscillation phenomena and its impacts on global weather, climate and carbon cycle variability; weather and climate research for wildland fire management; weather and climate powered decision support tools for prescribed fire; observation and study of air-sea fluxes and surface marine variability in challenging environments, including Arctic sea ice zones and hurricanes, with uncrewed surface vehicles.

- **Principal Investigator**: University of Washington's Cooperative Institute for Climate and Ecosystem Studies (*formerly JISAO*), Seattle, WA. (May 2015 - present)

- **Research Scientist**: University of Washington's Joint Institute for the Study of the Atmosphere and Ocean and NOAA Pacific Marine Environmental Laboratory, Seattle, WA. (Jul. 2006 – Sep. 2019)

- **Research Assistant**: University of Washington, Seattle, WA. (Sep. 1998 - Sep. 2006)

  Seaglider Developer (Development activities 1998-2003, Licensing 2008)

- **Teaching Assistant**: University of Washington, Seattle, WA. (Mar. 2001 - Jun. 2001)

- **Scientific Technician**: Particle Accelerator Operator, Argonne National Laboratory, Argonne, IL. (Nov. 1997 - May 1998)

- **Teaching Assistant**: The Ohio State University, Columbus, OH. (Mar. 1997 - Jun. 1997)

Peer-Reviewed Publications

Zhang, C., A.F. Levine, M. Wang, C. Gentemann, C.W. Mordy, E.D. Cokelet, P.A. Browne, Q. Yang, N. Lawrence-Slavas, C. Meinig, G. Smith, **A. Chiodi**, D. Zhang, P. Stabeno, W. Wang, H. Ren, A. Peterson, S.N. Figueroa, M. Steele, N.P. Barton, A. Huang, and H.-C. Shin (2022): Evaluation of surface conditions from operational forecasts using in situ saildrone observations in the Pacific Arctic. *Mon. Weather Rev.*, 150(6), 1437–1455, doi: 10.1175/MWR-D-20-0379.1

Chiodi, A.M., C. Zhang, E.D. Cokelet, Q. Yang, C.W. Mordy, C.L. Gentemann, J.N. Cross, N. Lawrence-Slavas, C. Meinig, M. Steele, D.E. Harrison, P.J. Stabeno, H.M. Tabisola, D. Zhang, E.F. Burger, K.M. O'Brien, and M. Wang (2021): Exploring the Pacific Arctic Seasonal Ice Zone with Saildrone USVs. *Front. Mar. Sci.*, 8, 640690, doi: 10.3389/fmars.2021.640697

Chiodi, A.M., B.E. Potter, and N.K. Larkin (2021): Multi-decadal change in western US nighttime vapor pressure deficit. *Geophys. Res. Lett.*, 48(15), e2021GL092830, doi: 10.1029/2021GL092830

Chiodi, A.M., and D.E. Harrison (2020): Tropical Pacific surface wind energy spectra and coherence: Basin-wide observations and their observing system implications. *J. Climate*, 33(16), 7141–7154, doi: 10.1175/JCLI-D-19-0836.1

Chiodi, A.M. (2019): Diagnosing and predicting ENSO SSTA development with TAO/Triton and scatterometer winds. *J. Climate*, 32, 8755-8770. doi: 10.1175/JCLI-D-19-0183.1.

Chiodi, A.M., N.K. Larkin, J.M. Varner, and J.K. Hiers (2019): Sensitivity of prescribed burn weather windows to atmospheric dispersion parameters over southeastern USA. *Int. J. Wildland Fire*, doi: 10.1071/WF18209

Chiodi, A.M., J.P. Dunne, and D.E Harrison (2019): Estimating air-sea carbon flux uncertainty over the tropical Pacific: Importance of winds and wind analysis uncertainty. *Global Biogeochem. Cycles*, doi: 10.1029/2018GB006047

Chiodi, A.M., N.S. Larkin, and J.M. Varner (2018): An analysis of southeastern U.S. prescribed burn weather windows: Seasonal variability and El Niño associations. *Int. J. Wildland Fire*, *27*(3), doi: 10.1071/WF17132

Chiodi, A.M., and D.E. Harrison (2017): Simulating ENSO SSTA from TAO/Triton winds: The impacts of 20 years of buoy observations in the Pacific waveguide and comparison with reanalysis products. *J. Climate*, *30*(3), 1041–1059, doi: 10.1175/JCLI-D-15-0865.1.

Chiodi, A.M., and D.E. Harrison (2017): Observed El Niño SSTA development and the effects of Easterly and Westerly Wind events in 2014–2015**.** *J. Climate*, *30*(4), 1505–1519, doi: 10.1175/JCLI-D-16-0385.1.

Harrison, D.E., and **A.M. Chiodi** (2017): Comment on 'Characterizing ENSO coupled variability and its impact on North American seasonal precipitation and temperature' by L'Heureux, Tippet, and Barnston. *J. Climate*, *30*(1), 427–436, doi: 10.1175/JCLI-D-15-0678.1.

Chiodi, A.M., N.A. Bond, N.K. Larkin, and J. Barbour (2016): Summertime rainfall events in eastern Washington and Oregon. *Weather Forecast*., 31, 1465-1480, doi: 10.1175/WAF-D-16-0024.1.

Chiodi, A.M., and D.E. Harrison (2015): Equatorial Pacific easterly wind surges and the onset of La Niña events. *J. Climate*, 28, 776-792, doi: 10.1175/JCLI-D-14-00227.1.

Chiodi, A.M., and D.E. Harrison (2015): Global seasonal precipitation anomalies robustly associated with El Niño and La Niña events—an OLR perspective. *J. Climate*, 28(15), 6133–6159, doi: 10.1175/JCLI-D-14-00387.1.

Harrison, D.E., and **A.M. Chiodi** (2015): Multi-decadal variability and trends in the El Niño-Southern Oscillation and tropical Pacific fisheries implications. *Deep-Sea Res. II*, 113, 9-21. doi: 10.1016/j.dsr2.2013.12.020.

Chiodi, A.M., D.E. Harrison and G.A. Vecchi (2014): Subseasonal atmospheric variability and El Niño waveguide warming: Observed effects of the Madden-Julian Oscillation and Westerly Wind Events. *J. Climate*, 27, 3619-3642. doi: 10.1175/JCLI-D-13-00547.1.

Chiodi, A.M. and D.E. Harrison (2014): Comment on Qian et al. 2008: La Nina and El Nino composites of atmospheric CO2 change. *Tellus B*, 66, 20428, http://dx.doi.org/10.3402/tellusb.v66.20428

Chiodi, A.M. and D.E. Harrison (2013): El Niño impacts on seasonal U.S. atmospheric circulation, temperature, and precipitation anomalies: The OLR-event perspective. *J. Climate*, 23(3), doi: 10.1175/JCLI-D-12-00097.1, 822-837.

Chiodi, A.M. and D.E. Harrison (2012): Determining CO2 airborne fraction trends with uncertain land use change emission records. *International Journal of Climate Change: Impacts and Responses*, 3(1), 79-88.

Chiodi, A.M. and D.E. Harrison (2010): Characterizing warm-ENSO variability in the equatorial Pacific: An OLR perspective. *J. Climate*, 23, doi: 10.1175/2009JCLI3030.1, 2428-2439.

Chiodi, A.M. and D.E. Harrison (2010): The annual range of southern hemisphere SST: Comparison with surface heating and possible reasons for the high-latitude falloff. *J. Climate*, 23, doi: 10.1175/2009JCLI3154.1, 1994-2003.

Harrison, D.E**., A.M. Chiodi** and G.A. Vecchi (2009): Effects of surface forcing on the seasonal cycle of the eastern equatorial Pacific. *J. Mar. Res.*, 67(6), doi: 10.1357/002224009792006179, 701-729.

Harrison, D.E. and **Chiodi, A.M.** (2009): Pre- and Post-1997/1998 Westerly Wind Events and Equatorial Pacific Cold Tongue Warming. *J. Climate*, 22, 568-581.

Chiodi, A.M. and D.E. Harrison (2008) Hurricane Alley SST variability in 2005 and 2006. *J. Climate*, 21, 4710-4722.

Chiodi, A.M. and D.E. Harrison (2007) Mechanisms of Summertime Subtropical Southern Indian Ocean Sea Surface Temperature Variability: On the Importance of Humidity Anomalies and the Meridional Advection of Water Vapor, *J. Climate*, 20, 4835-4852.

Chiodi, A.M. and D.E. Harrison (2006) Summertime subtropical sea surface temperature variability, Geophys. Res. Lett., 33, L08601, doi:10.1029/2005GL024524

Charles C. Eriksen, T. James Osse, Russell D. Light, Timothy Wen, Thomas W. Lehman, Peter L. Sabin, John W. Ballard, and **Andrew M. Chiodi** (2001): Seaglider: A Long-Range Autonomous Underwater Vehicle for Oceanographic Research, *IEEE Journal of Oceanic Engineering*, 26, 424-436