

AOML Peer-Reviewed Publications

FY-2014-2019

(AOML authors denoted by capital letters)

FY-2014

ABERSON, S.D. A climatological baseline for assessing the skill of tropical cyclone phase forecasts. *Weather and Forecasting*, 29(1):122-129 (doi:10.1175/WAF-D-12-00130.1) (2014).

Amaya, D.J., and G.R. FOLTZ. Impacts of canonical and Modoki El Niño on tropical Atlantic SST. *Journal of Geophysical Research*, 119(C2):777-789 (doi:10.1002/2013JC009476) (2014).

Baker, W.E., R. ATLAS, C. Cardinali, A. Clement, G.D. Emmitt, B.M. Gentry, R.M. Hardesty, E. Kallen, M.J. Kavaya, R. Langland, Z. Ma, M. Masutani, W. McCarty, R.B. Pierce, Z. Pu, L.P. Riishojaard, J. Ryan, S. Tucker, M. Weissmann, and J.G. Yoe. Lidar-measured wind profiles: The missing link in the global observing system. *Bulletin of the American Meteorological Society*, 95(4):543-564 (doi:10.1175/BAMS-D-12-00164.1) (2014).

Bakker, D.C.E., B. Pfeil, K. Smith, S. Hankin, A. Olsen, S.R. Alin, C. Cosca, S. Harasawa, A. Kozyr, Y. Nojiri, K.M. O'Brien, U. Schuster, M. Telszewski, B. Tilbrook, C. Wada, J. Akl, L. BARBERO, N.R. Bates, J. Boutin, Y. Bozec, W.-J. Cai, R.D. CASTLE, F.P. Chavez, L. Chen, M. Chierici, K. Currie, H.J.W. de Baar, W. Evans, R.A. Feely, A. Fransson, Z. Gao, B. Hales, N.J. Hardman-Mountford, M. Hoppema, W.-J. Huang, C.W. Hunt, B. HUSS, T. Ichikawa, T. Johannessen, E.M. Jones, S.D. Jones, S. Jutterstrom, V. Kitidis, A. Kortzinger, P. Llandschutzer, S.K. Lauvset, N. Lefevre, A.B. Manke, J.T. Mathis, L. Merlivat, N. Metzl, A. Murata, T. Newberger, A.M. Omar, T. Ono, G.-H. PARK, K. Paterson, D. PIERROT, A.F. Rios, C.L. Sabine, S. Saito, J. Salisbury, V.V.S.S. Sarma, R. Schlitzer, R. Sieger, I. Skjelvan, T. Steinhoff, K.F. SULLIVAN, H. Sun, A.J. Sutton, T. Suzuki, C. Sweeney, T. Takahashi, J. Tjiputra, N. Tsurushima, S.M.A.C. van Heuven, D. Vandemark, P. Vlahos, D.W.R. Wallace, R. WANNINKHOF, and A.J. Watson. An update to the surface CO₂ atlas (SOCAT version 2). *Earth System Science Data*, 6(1):69-90 (doi:10.5194/essd-6-69-2014) (2014).

Balaguru, K., S. Taraphdar, L.R. Leung, and G.R. FOLTZ. Increase in the intensity of postmonsoon Bay of Bengal tropical cyclones. *Geophysical Research Letters*, 41(10):3594-3601 (doi:10.1002/2014GL060197) (2014).

BARINGER, M.O., W.E. Johns, S. GARZOLI, S. DONG, D. VOLKOV, and W.R. Hobbs. Global oceans: Meridional oceanic heat transport in the Atlantic Ocean. In *State of the Climate in 2013*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 95(7):S69-S71 (doi:10.1175/2014BAMS StateoftheClimate.1) (2014).

BARINGER, M.O., G. McCarthy, J. Willis, M. Lankhorst, D.A. Smeed, U. Send, D. Rayner, W.E. Johns, C.S. MEINEN, S.A. Cunningham, T.O. Kanzow, E. Frajka-Williams, and J. Marotzke. Global oceans: Meridional overturning circulation observations in the North Atlantic Ocean. In *State of the Climate in 2013*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 95(7):S67-S69 (doi:10.1175/2014BAMSStateoftheClimate.1) (2014).

Barnes, B.B., C. Hu, J.P. Cannizzaro, S.E. Craig, P. Hallock, D.L. Jones, J.C. Lehrter, N. MELO, B.A. Schaeffer, and R. Zepp. Estimation of diffuse attenuation of ultraviolet light in optically shallow Florida Keys waters from MODIS measurements. *Remote Sensing of Environment*, 140:519-532 (doi:10.1016/j.rse.2013.09.024) (2014).

Bell, G.D., C.W. Landsea, S.B. GOLDENBERG, R.J. Pasch, E.S. Blake, J. Schemm, and T.B. Kimberlain. The tropics: Atlantic basin. In *State of the Climate in 2013*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 95(7):S86-S90 (doi:10.1175/2014BAMSSStateoftheClimate.1) (2014).

Bloetscher, F., F.J. Pleitez, T. Romah, A. Albasri, C. Dickinson, H. El Sharif, K. Matthews, T.-D. Nguyen, L. Riche, F. Youngman, T.P. CARSEY, J. STAMATES, and J.R. Proni. The use of SF₆ and GIS to study farfield modeling of ocean outfall plumes in Florida. *Journal of Environmental Protection*, 5(11):1037-1052 (doi:10.4236/jep.2014.511103) (2014).

Boyer, T., J. Antonov, J. Reagan, C. SCHMID, and R. Locaranini. Global oceans: Subsurface salinity. In *State of the Climate in 2013*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 95(7): S62-S65 (doi:10.1175/2014BAMSSStateoftheClimate.1) (2014).

Cai, W.-J., N.R. Bates, L. Guo, L.G. Anderson, J.T. Mathis, R. WANNINKHOF, D.A. Hansell, L. Chen, and I.P. Semiletov. Carbon fluxes across boundaries in the Pacific Arctic region in a changing environment. In *The Pacific Arctic Region: Ecosystem Status and Trends in a Rapidly Changing Environment*, J.M. Grebmeier and W. Maslowski (eds.). Springer, Netherlands (doi:10.1007/978-94-017-8863-2_8), 199-222 (2014).

Cannizzaro, J.P., C. Hu, K.L. Carder, C.R. KELBLE, N. MELO, E.M. JOHNS, G.A. Vargo, and C.A. Heil. On the accuracy of SeaWiFS ocean color data products on the West Florida Shelf. *Journal of Coastal Research*, 29(6):1257-1272 (doi:10.2112/JCOASTRES-D-12-00223.1) (2013).

Cheon, W.G., Y.-G. Park, J.R. Toggweiler, and S.-K. LEE. The relationship of Weddell polynya and open-ocean deep convection to the Southern Hemisphere westerlies. *Journal of Physical Oceanography*, 44(2):694-713 (doi:10.1175/JPO-D-13-0112.1) (2014).

Christensen, J.H., K. Krishna Kumar, E. Aldrian, S.-I. An, I.F.A. Cavalcanti, M. de Castro, W. Dong, P. Goswami, A. Hall, J.K. Kanyanga, A. Kitoh, J. Kossin, N.-C. Lau, J. Renwick, D.B. Stephenson, S.-P. Xie, T. Zhou, L. Abraham, T. Ambrizzi, B. Anderson, O. Arakawa, R. Arritt, M. Baldwin, M. Barlow, D. Barriopedro, M. Biasutti, S. Biner, D. Bromwich, J. Brown, W. Cai, L.V. Carvalho, P. Chang, X. Chen, J. Choi, O.B. Christensen, C. Deser, K. Emanuel, H. Endo, D.B. ENFIELD, A. Evan, A. Giannini, N. Gillett, A. Hariharasubramanian, P. Huang, J. Jones, A. Karumuri, J. Katzfey, E. Kjellstrom, J. Knight, T. Knutson, A. Kulkarni, K.R. Kundeti, W.K. Lau, G. Lenderink, C. Lennard, L.R. Leung, R. Lin, T. Losada, N.C. Mackellar, V. Magana, G. Marshall, L. Mearns, G. Meehl, C. Menendez, H. Murakami, M.J. Nath, J. D. Neelin, G.J. van Oldenborgh, M. Olesen, J. Polcher, Y. Qian, S. Ray, K.D. Reich, B. Rodriguez de Fonseca, P. Ruti, J. Screen, J. Sedlacek, S. Solman, M. Stendel, S. Stevenson, I. Takayabu, J. Turner, C. Ummenhofer, K. Walsh, B. Wang, C. WANG, I. Watterson, M. Widlansky, A. Wittenberg, T. Woollings, S.-W. Yeh, C. Zhang, L. Zhang, X. Zheng, and L. Zou. Climate phenomena and their relevance for future regional climate change. In *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [T.F. Stocker, D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex, and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, 1217-1308 (2014).

Conmy, R.N., P.G. Coble, J. Farr, A.M. WOOD, K. Lee, W.S. Pegau, I.D. Walsh, C.R. Koch, M.I. Abercrombie, M.S. Miles, M.R. Lewis, S.A. Ryan, B.J. Robinson, T.L. King, C.R. KELBLE, and J. Lacoste. Submersible optical sensors exposed to chemically dispersed crude oil: Wave tank simulations for improved oil spill monitoring. *Environmental Science and Technology*, 48(3):1803-1810 (doi:10.1021/es404206y) (2014).

COOK, G.S., P.J. FLETCHER, and C.R. KELBLE. Towards marine ecosystem based management in South Florida: Investigating the connections among ecosystem pressures, states, and services in a complex coastal system. *Ecological Indicators*, 44:26-39 (doi:10.1016/j.ecolind.2013.10.026) (2014).

COOK, G.S., P.E. Parnell, and L.A. Levin. Population connectivity shifts at high frequency within an open-coast marine protected area network. *PLoS ONE*, 9(7):e103654 (doi:10.1371/journal.pone.0103654) (2014).

Crespo-Medina, M., C.D. Meile, K.S. Hunter, A.-R. Diercks, V.L. Asper, V.J. Orphan, P.L. Tavormina, L.M. Nigro, J.J. Battles, J.P. Chanton, A.M. Shiller, D.-J. Joung, R.M.W. Amon, A. Bracco, J.P. Montoya, T.A. Villareal, A.M. WOOD, and S.B. Joye. The rise and fall of methanotrophy following a deepwater oil-well blowout. *Nature Geoscience*, 7(6):423-427 (doi:10.1038/NGEO2156) (2014).

Davies, N., D. Field, L. Amaral-Zettler, M.S. Clark, J. Deck, A. Drummond, D.P. Faith, J. Geller, J. Gilbert, F.O. Glockner, P.R. Hirsch, J. Leong, C. Meyer, M. Obst, S. Planes, C. Scholin, A.P. Vogler, R.D. Gates, R. Toonen, V. Berteaux-Lecellier, M. Barbier, K. Barker, S. Bertilsson, M. Bicak, M.J. Bietz, J. Bobe, L. Bodrossy, A. Borja, J. Coddington, J. Fuhrman, G. Gerdts, R. Gillespie, K. GOODWIN, P.C. Hanson, J.-M. Hero, D. Hoekman, J. Jansson, C. Jeanthon, R. Kao, A. Klindworth, R. Knight, R. Kottmann, M.S. Koo, G. Kotoulas, A.J. Lowe, V.T. Marteinsson, F. Meyer, N. Morrison, D.D. Myrold, E. Pafilis, S. Parker, J.J. Parnell, P.N. Polymenakou, S. Ratnasingham, G.K. Roderick, N. Rodriguez-Ezpeleta, K. Schonrogge, N. Simon, N.J. Valette-Silver, Y.P. Springer, G.N. Stone, S. Stones-Havas, S.-A. Sansone, K.M. Thibault, P. Wecker, A. Wichels, J.C. Wooley, T. Yahara, and A. Zingone. The founding charter of the Genomic Observatories Network. *GigaScience*, 3:2 (doi:10.1186/2047-217X-3-2), 5 pp. (2014).

DeHart, J.C., R.A. Houze, and R.F. ROGERS. Quadrant distribution of tropical cyclone inner-core kinematics in relation to environmental shear. *Journal of the Atmospheric Sciences*, 71(7):2713-2732 (doi:10.1175/JAS-D-13-0298.1) (2014).

DOMINGUES, R., G.J. GONI, S. Swart, and S. DONG. Wind-forced variability of the Antarctic Circumpolar Current south of Africa between 1993-2010. *Journal of Geophysical Research*, 119(C2):1123-1145 (doi:10.1002/2013JC008908) (2014).

DONG, S., and K.A. Kelly. How well do climate models reproduce North Atlantic Subtropical Mode water? *Journal of Physical Oceanography*, 43(10):2230-2244 (doi:10.1175/JPO-D-12-0215.1) (2013).

DONG, S., M.O. BARINGER, G.J. GONI, C.S. MEINEN, and S.L. GARZOLI. Seasonal variations in the South Atlantic meridional overturning circulation from observations and numerical models. *Geophysical Research Letters*, 41(13):4611-4618 (doi:10.1002/2014GL060428) (2014).

Ebentier, D.L., K.T. Hanley, Y. Cao, B.D. Badgley, A.B. Boehm, J.S. Ervin, K.D. GOODWIN, M. Gourmelon, J.F. Griffith, P.A. Holden, C.A. Kelty, S. Lozach, C. McGee, L.A. Peed, M. Raith, H. Ryu, M.J. Sadowsky, E.A. Scott, J. Santo Domingo, A. Schriewer, C.D. SINIGALLIANO, O.C. Shanks, L.C. Van De Werfhorst, D. Wang, S. Wuertz, and J.A. Jay. Evaluation of the repeatability and reproducibility of a suite of qPCR-based microbial source tracking methods. *Water Research*, 47(18):6839-6848 (doi:10.1016/j.watres.2013.01.060) (2013).

ENOCHS, I.C., D.P. MANZELLO, R. CARLTON, S. Schopmeyer, R. VAN HOIDONK, and D. Lirman. Effects of light and elevated $p\text{CO}_2$ on the growth and photochemical efficiency of *Acropora cervicornis*. *Coral Reefs*, 33(2):477-485 (doi:10.1007/s00338-014-1132-7) (2014).

Feely, R.A., R. WANNINKhof, C.L. Sabine, J.T. Mathis, T. Takahashi, and S. Khatiwala. Global oceans: Global ocean carbon cycle. In *State of the Climate in 2013*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 95(7):S73-S78 (doi:10.1175/2014BAMSStateoftheClimate.1) (2014).

FLETCHER, P.J., C.R. KELBLE, W.K. Nuttle, and G.A. Kiker. Using the integrated ecosystem assessment framework to build consensus and transfer information to managers. *Ecological Indicators*, 44:11-25 (doi:10.1016/j.ecolind.2014.03.024) (2014).

FOLTZ, G.R., C. SCHMID, and R. LUMPKIN. Seasonal cycle of the mixed layer heat budget in the northeastern tropical Atlantic Ocean. *Journal of Climate*, 26(20):8169-8188 (doi:10.1175/JCLI-D-13-00037.1) (2013).

Fox-Kemper, B., R. LUMPKIN, and F.O. Bryan. Lateral transport in the ocean interior. In *Ocean Circulation and Climate: A 21st Century Perspective*, G. Siedler, S.M. Griffies, J. Gould, and J.A. Church (eds.). International Geophysics Series, Academic Press, Volume 103, 185-209 (2013).

GARCIA, R.F., and C.S. MEINEN. Accuracy of Florida Current volume transport measurements at 27°N using multiple observational techniques. *Journal of Atmospheric and Oceanic Technology*, 31(5):1169-1180 (doi:10.1175/JTECH-D-13-00148.1) (2014).

Glynn, P.W., I.C. ENOCHS, J.A. Afflerbach, V.W. Brandtneris, and J.E. Serafy. Eastern Pacific reef fish responses to coral recovery following El Niño disturbances. *Marine Ecology Progress Series*, 495:233-247 (doi:10.3354/meps10594) (2014).

GOES, M., I. Wainer, and N. Signorelli. Investigation of the causes of historical changes in the subsurface salinity minimum of the South Atlantic. *Journal of Geophysical Research*, 119(9):5654-5675 (doi:10.1002/2014JC009812) (2014).

GONI, G.J., A. Knaff, and I.I. Lin. The tropics: Tropical cyclone heat potential. In *State of the Climate in 2013*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 95(7):S99-S101 (doi:10.1175/2014BAMSStateoftheClimate.1) (2014).

GONI, G., J. Sprintall, D. Roemmich, A.G. Thresher, R. Couley, and M. BARINGER. The global network of XBT temperature sections in support of oceanographic and climate studies. In *Oceans and Society: Blue Planet*, S. Djavidnia, V. Cheung, M. Ott, and S. Seeyave (eds.). Cambridge Scholars Publishing (ISBN 978-1-4438-5639-3), 37-45 (2014).

HALLIWELL, G.R., A. Srinivasan, V. Kourafalou, H. YANG, D. WILLEY, M. Le Henaff, and R. ATLAS. Rigorous evaluation of a fraternal twin ocean OSSE system for the open Gulf of Mexico. *Journal of Oceanic and Atmospheric Technology*, 31(1):105-130 (doi:10.1175/JTECH-D-13-00011.1) (2014).

Happell, J.D., Y. Mendoza, and K. GOODWIN. A reassessment of the soil sink for atmospheric carbon tetrachloride based upon static flux chamber measurements. *Journal of Atmospheric Chemistry*, 71(2):113-123 (doi:10.1007/s10874-014-9285-x) (2014).

Hoffman, R.N., J.V. Ardizzone, S.M. Leidner, D.K. Smith, and R.M. ATLAS. Error estimates for ocean surface winds: Applying Desroziers diagnostics to the cross-calibrated, multiplatform analysis of wind speed. *Journal of Oceanic and Atmospheric Technology*, 30(11):2596-2603 (doi:10.1175/JTECH-D-13-00018.1) (2013).

Huang, K., N. Cassar, R. WANNINKHOF, and M. Bender. An isotope dilution method for high-frequency measurements of dissolved inorganic carbon concentration in the surface ocean. *Limnology and Oceanography-Methods*, 11:572-583 (doi:10.4319/lom.2013.11.572) (2013).

Hutchinson, K., S. Swart, I.J. Ansorge, and G.J. GONI. Exposing XBT bias in the Atlantic sector of the Southern Ocean. *Deep-Sea Research, Part I*, 80:11-22 (doi:10.1016/j.dsr.2013.06.001) (2013).

Ishii, M., R.A. Feely, K.B. Rodgers, G.-H. PARK, R. WANNINKHOF, D. Sasano, H. Sugimoto, C.E. Cosca, S. Nakaoka, M. Telszewski, Y. Nojiri, S.E. Mikaloff Fletcher, Y. Niwa, P.K. Patra, V. Valsala, H. Nakano, I. Lima, S.C. Doney, E.T. Buitenhuis, O. Aumont, J.P. Dunne, A. Lenton, and T. Takahashi. Air-sea CO₂ flux in the Pacific Ocean for the period 1990-2009. *Biogeosciences*, 11(3):709-734 (doi:10.5194/bg-11-709-2014) (2014).

Ji, X., J.D. Neelin, S.-K. LEE, and C.R. Mechoso. Interhemispheric teleconnections from tropical heat sources in intermediate and simple models. *Journal of Climate*, 27(2):684-697 (doi:10.1175/JCLI-D-13-00017.1) (2014).

Joyner, J., D. WANLESS, C.D. SINIGALLIANO, and E.K. Lipp. Use of quantitative real-time PCR for direct detection of *Serratia marcescens* in marine and other aquatic environments. *Applied and Environmental Microbiology*, 80(5):1679-1683 (doi:10.1128/AEM.02755-13) (2014).

KEARNEY, K.A., C. Stock, and J.L. Sarmiento. Amplification and attenuation of increased primary production in a marine food web. *Marine Ecology Progress Series*, 491:1-14 (doi:10.3354/meps10484) (2013).

Kerr, P.C., A.S. Donahue, J.J. Westerink, R.A. Luettich, L.Y. Zheng, R.H. Weisberg, Y. Huang, H.V. Wang, Y. Teng, D.R. Forrest, A. Roland, A.T. Haase, A.W. Kramer, A.A. Taylor, J.R. Rhome, J.C. Feyen, R.P. Signell, J.L. Hanson, M.E. Hope, R.M. Estes, R.A. Dominguez, R.P. Dunbar, L.N. Semeraro, H.J. Westerink, A.B. Kennedy, J.M. Smith, M.D. POWELL, V.J. Cardone, and A.T. Cox. U.S. IOOS coastal and ocean modeling testbed: Inter-model evaluation of tides, waves, and hurricane surge in the Gulf of Mexico. *Journal of Geophysical Research-Oceans*, 118(C10):5129-5172 (doi:10.1002/jgrc.20376) (2013).

Layton, B.A., Y. Cao, D.L. Ebentier, K. Hanley, E. Balleste, J. Brandao, M. Byappanahalli, R. Converse, A.H. Farnleitner, J. Gentry-Shields, M.L. GIDLEY, M. Gourmelon, C.S. Lee, J. Lee, S. Lozach, T. Madi, W.G. Meijer, R. Noble, L. Peed, G.H. Reischer, R. Rodrigues, J.B. Rose, A. Schriewer, C.D. SINIGALLIANO, S. Srinivasan, J. Stewart, L.C. Van De Werfhorst, D. Wang, R. Whitman, S. Wuertz, J. Jay, P.A. Holden, A.B. Boehm, O. Shanks, and J.F. Griffith. Performance of human fecal anaerobe-associated PCR-based assays in a multi-laboratory method evaluation study. *Water Research*, 47(18):6897-6908 (doi:10.1016/j.watres.2013.05.060) (2013).

Le Henaff, M., V.H. Kourafalou, R. Dussurget, and R. LUMPKIN. Cyclonic activity in the eastern Gulf of Mexico: Characterization from along-track altimetry and in situ drifter trajectories. *Progress in Oceanography*, 120:120-138 (doi:10.1016/j.pocean.2013.08.002) (2014).

Le Quere, C., G.P. Peters, R.J. Andres, R.M. Andrew, T. Boden, P. Ciais, P. Friedlingstein, R.A. Houghton, G. Marland, R. Moriarty, S. Sitch, P. Tans, A. Arneth, A. Arvanitis, D.C.E. Bakker, L. Bopp, J.G. Canadell, L.P. Chini, S.C. Doney, A. Harper, I. Harris, J.I. House, A.K. Jain, S.D. Jones, E. Kato, R.F. Keeling, K. Klein Goldewijk, A. Kortzinger, C. Koven, N. Lefevre, F. Maignan, A. Omar, T. Ono, G.-H. PARK, B. Pfeil, B. Poulet, M.R. Raupach, P. Regnier, C. Rodenbeck, S. Saito, J. Schwinger, J. Segschneider, B.D. Stocker, T. Takahashi, B. Tilbrook, S. van Heuven, N. Viovy, R. WANNINKHOF, A. Wiltshire, and S. Zaehle. Global carbon budget 2013. *Earth System Science Data*, 6(1):235-263 (doi:10.5194/essd-6-235-2014) (2014).

LEE, S.-K., C.R. Mechoso, C. WANG and J.D. Neelin. Interhemispheric influence of the northern summer monsoons on the southern subtropical anticyclones. *Journal of Climate*, 26(24):10,193-10,204 (doi:10.1175/JCLI-D-13-00106.1) (2013).

LEE, S.-K., B.E. Mapes, C. WANG, D.B. ENFIELD, and S.J. Weaver. Springtime ENSO phase evolution and its relation to rainfall in the continental U.S. *Geophysical Research Letters*, 41(5):1673-1680 (doi:10.1002/2013GL059137) (2014).

Levin, P.S., C.R. KELBLE, R.L. Shuford, C. Ainsworth, Y. deReynier, R. Dunsmore, M.J. Fogarty, K. Holsman, E.A. Howell, M.E. Monaco, S.A. Oakes, and F. Werner. Guidance for implementation of integrated ecosystem assessments: A U.S. perspective. *ICES Journal of Marine Science*, 71(5):1198-1204 (doi:10.1093/icesjms/fst112) (2014).

Li, C., and C. WANG. Simulated impacts of two types of ENSO events on tropical cyclone activity in the western North Pacific: Large-scale atmospheric response. *Climate Dynamics*, 42(9-10):2727-2743 (doi:10.1007/s00382-013-1999-y) (2014).

Li, W., L. Li, M. Ting, Y. Deng, Y. Kushnir, Y. Liu, Y. Lu, C. WANG, and P. Zhang. Intensification of the Southern Hemisphere summertime subtropical anticyclones in a warming climate. *Geophysical Research Letters*, 40(22):5827-6015 (doi:10.1002/2013GL058124) (2013).

- Li, X., W. Zheng, X. Yang, J.A. ZHANG, W.G. Pichel, and Z. Li. Coexistence of atmospheric gravity waves and boundary layer rolls observed by SAR. *Journal of the Atmospheric Sciences*, 70(11):3448-3459 (doi:10.1175/JAS-D-12-0347.1) (2013).
- Li, Y., W. Han, T. Shinoda, C. WANG, M. Ravichandran, and J.-W. Wang. Revisiting the wintertime intraseasonal SST variability in the tropical South Indian Ocean: Impact of the ocean interannual variation. *Journal of Physical Oceanography*, 44(7):1886-1907 (doi:10.1175/JPO-D-13-0238.1) (2014).
- Li, Y., W. Han, T. Shinoda, C. WANG, R.-C. Lien, J.N. Mourn, and J.-W. Wang. Effects of the diurnal cycle in solar radiation on the tropical Indian Ocean mixed layer variability during wintertime Madden-Julian oscillations. *Journal of Geophysical Research*, 118(C10):4945-4964 (doi:10.1002/jgrc.20395) (2013).
- Loomis, D.K., P.B. Ortner, C.R. KELBLE, and S.K. Paterson. Developing integrated ecosystem indices. *Ecological Indicators*, 44:57-62 (doi:10.1016/j.ecolind.2014.02.032) (2014).
- LUMPKIN, R., G. GONI, and K. Dohan. Global oceans: Surface currents. In *State of the Climate in 2013*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 95(7):S65-S67 (doi:10.1175/2014BAMSStateoftheClimate.1) (2014).
- Macdonald, A.M., and M.O. BARINGER. Ocean heat transport. In *Ocean Circulation and Climate: A 21st Century Perspective*, G. Siedler, S.M. Griffies, J. Gould, and J.A. Church (eds.). International Geophysics Series, Volume 103, Academic Press, 759-785 (2013).
- Maloney, E.D., S.J. Camargo, E. Chang, B. Colle, R. Fu, K.L. Geil, Q. Hu, X. Jiang, N. Johnson, K.B. Karnauskas, J. Kinter, B. Kirtman, S. Kumar, B. Langenbrunner, K. Lombardo, L.N. Long, A. Mariotti, J.E. Meyerson, K.C. Mo, J.D. Neelin, Z. Pan, R. Seager, Y. Serra, A. Seth, J. Sheffield, J. Stroeve, J. Thibault, S.-P. Xie, C. WANG, B. Wyman, and M. Zhao. North American climate in CMIP5 experiments, Part III: Assessment of 21st century projections. *Journal of Climate*, 27(6):2230-2270 (doi:10.1175/JCLI-D-13-00273.1) (2014).
- MANZELLO, D.P., I.C. ENOCHS, S. Musielewicz, R. CARLTON, and D. Gledhill. Tropical cyclones cause CaCO₃ undersaturation of coral reef seawater in a high-CO₂ world. *Journal of Geophysical Research*, 118(C10):5312-5321 (doi:10.1002/jgrc.20378) (2013).
- MARKS, F.D. Advancing tropical cyclone forecasts using aircraft observations. In *Monitoring and Prediction of Tropical Cyclones in the Indian Ocean and Climate Change*, U.C. Mohanty, M. Mohapatra, O.P. Singh, B.K. Bandyopadhyay, and L.S. Rathore (eds.). Springer Publishing, 169-191 (doi:10.1007/978-94-007-7720-0) (2014).
- Marshall, F.E., K. Banks, and G.S. COOK. Ecosystem indicators for southeast Florida Beaches. *Ecological Indicators*, 44:81-91 (doi:10.1016/j.ecolind.2013.12.021) (2014).
- Maximenko, N., R. LUMPKIN, and L. Centurioni. Ocean surface circulation. In *Ocean Circulation and Climate: A 21st Century Perspective*, G. Siedler, S.M. Griffies, J. Gould, and J.A. Church (eds.). International Geophysics Series, Academic Press, Volume 103, 283-304 (2013).
- MEINEN, C.S., and S.L. GARZOLI. Attribution of Deep Western Boundary Current variability at 26.5°N. *Deep-Sea Research, Part I*, 90:81-90 (doi:10.1016/j.dsr.2014.04.016) (2014).
- MEINEN, C.S., S. Speich, R.C. PEREZ, S. DONG, A.R. Piola, S.L. GARZOLI, M.O. BARINGER, S. Gladyshev, and E.J.D. Campos. Temporal variability of the meridional overturning circulation at 34.5°S: Results from two pilot boundary arrays in the South Atlantic. *Journal of Geophysical Research*, 118(C12):6461-6478 (doi:10.1002/2013JC009228) (2013).

- Ming, J., J.A. ZHANG, R.F. ROGERS, F.D. MARKS, Y. Wang, and N. Cai. Multiplatform observations of boundary layer structure in the outer rainbands of landfalling typhoons. *Journal of Geophysical Research-Atmospheres*, 119(13):7799-7814 (doi:10.1002/2014JD021637) (2014).
- Muller-Karger, F., M. Roffer, N. Walker, M. Oliver, O. Schofield, M. Abbott, H. Graber, R. Leben, and G. GONI. Satellite remote sensing in support of an integrated ocean observing system. *IEEE Geoscience and Remote Sensing Magazine*, 1(4):8-18 (doi:10.1109/MGRS.2013.2289656) (2013).
- Muller-Karger, F.E., M.T. Kavanaugh, E. Montes, W.M. Balch, M. Breitbart, F.P. Chavez, S.C. Doney, E.M. JOHNS, R.M. Letelier, M.W. Lomas, H.M. Sosik, and A.E. White. A framework for a marine biodiversity observing network within changing continental shelf seascapes. *Oceanography*, 27(2):18-23 (doi:10.5670/oceanog.2014.56) (2014).
- Negrón-Juarez, R.I., J.Q. Chambers, G.C. Hurt, B. ANNANE, S. Cocke, M. POWELL, M. Stott, S. Goosem, D.J. Metcalfe, and S.S. Saatchi. Remote sensing assessment of forest disturbance across complex mountainous terrain: The pattern and severity of impacts of tropical cyclone Yasi on Australian rainforests. *Remote Sensing*, 6(6):5633-5649 (doi:10.3390/rs6065633) (2014).
- Nolan, D.S., J.A. ZHANG, and E.W. UHLHORN. On the limits of estimating the maximum wind speeds in hurricanes. *Monthly Weather Review*, 142(8):2814-2837 (doi:10.1175/MWR-D-13-00337.1) (2014).
- Ogden, J.C., J.D. Baldwin, O.L. Bass, J.A. Browder, M.I. Cook, P.C. Frederick, P.E. Frezza, R.A. Galvez, A.B. Hodgson, K.D. Meyer, L.D. Oberhofer, A.F. Paul, P.J. FLETCHER, S.M. Davis, and J.J. Lorenz. Waterbirds as indicators of ecosystem health in the coastal marine habitats of southern Florida: 1. Selection and justification for a suite of indicator species. *Ecological Indicators*, 44:148-163 (doi:10.1016/j.ecolind.2014.03.007) (2014).
- Ogden, J.C., J.D. Baldwin, O.L. Bass, J.A. Browder, M.I. Cook, P.C. Frederick, P.E. Frezza, R.A. Galvez, A.B. Hodgson, K.D. Meyer, L.D. Oberhofer, A.F. Paul, P.J. FLETCHER, S.M. Davis, and J.J. Lorenz. Waterbirds as indicators of ecosystem health in the coastal marine habitats of southern Florida: 2. Conceptual ecological models. *Ecological Indicators*, 44: 128-147 (doi:10.1016/j.ecolind.2014.03.008) (2014).
- Olascoaga, M.J., F.J. Beron-Vera, G. Haller, J. TRINANES, M. Iskandarani, E.F. Coelho, B.K. Haus, H.S. Huntley, G. Jacobs, A.D. Kirwan, B.L. Lipphardt, T.M. Ozgokmen, A.J.H.M. Reniers, and A. Valle-Levinson. Drifter motion in the Gulf of Mexico constrained by altimetric Lagrangian coherent structures. *Geophysical Research Letters*, 40(23):6171-6175 (doi:10.1002/2013GL058624) (2013).
- Ortner, P.B., P.J. FLETCHER, and C.R. KELBLE. Introduction to tools to support ecosystem based management of South Florida's coastal resources. *Ecological Indicators*, 44:2-5 (doi:10.1016/j.ecolind.2014.04.020) (2014).
- Pattanayak, S., U.C. Mohanty, and S.G. GOPALAKRISHNAN. Improvement in track and intensity prediction of Indian seas tropical cyclones with vortex assimilation. In *Monitoring and Prediction of Tropical Cyclones in the Indian Ocean and Climate Change*, U.C. Mohanty, M. Mohapatra, O.P. Singh, B.K. Bandyopadhyay, and L.S. Rathore (eds.). Springer Publishing (doi:10.1007/978-94-007-7720-0), 219-229 (2014).
- Perez-Santos, I., W. Schneider, A. Valle-Levinson, J. Garces-Vargas, I. Soto, R. Montoya-Sanchez, N. MELO, and F. Muller-Karger. Chlorophyll-a patterns and mixing processes in the Yucatan basin, Caribbean Sea. *International Journal of Marine Science*, 40(1):11-31 (doi:10.7773/cm.v40i1.2320) (2014).

Rhein, M., S.R. Rintoul, S. Aoki, E. Campos, D. Chambers, R.A. Feely, S. Gulev, G.C. Johnson, S.A. Josey, A. Kostianoy, C. Mauritzen, D. Roemmich, L.D. Talley, F. Wang, I. Allison, M. Aoyama, M. BARINGER, N.R. Bates, T. Boyer, R.H. Byrne, S. Cooley, S. Cunningham, T. Delcroix, C.M. Domingues, S. Doney, J. Dore, P.J. Durack, R. Fine, M. Gonzalez-Davila, S. Good, N. Gruber, M. Hemer, D. Hydes, M. Ishii, S. Jacobs, T. Kanzow, D. Karl, G. Kaser, A. Kazmin, R. Key, S. Khatiwala, J. Kleypas, R. Kwok, K. Lee, E. Leuliette, M. Menendez, C. Mordy, J. Olafsson, J. Orr, A. Orsi, G.-H. Park, I. Polyakov, S.G. Purkey, B. Qiu, G. Reverdin, A. Romanou, S. Schmidtko, R. Schmitt, K. Shimada, D. Smith, T.M. Smith, U. Stober, L. Stramma, T. Suga, N. Swart, T. Takahashi, T. Tanhua, K. von Schuckmann, H. von Storch, X. Wang, R. WANNINKHOF, S. Wijsmans, P. Woodworth, I. Yashayaev, and L. Yu. Observations: Ocean. In *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [T.F. Stocker, D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, 255-315 (2014).

Rio-Berrios, R., T. VUKICEVIC, and B. Tang. Adopting model uncertainties for tropical cyclone intensity prediction. *Monthly Weather Review*, 142(1):72-78 (doi:10.1175/MWR-D-13-00186.1) (2014).

Rodgers, K.B., O. Aumont, S.E. Mikaloff Fletcher, Y. Plancherel, L. Bopp, C. de Boyer Montegut, D. Iudicone, R.F. Keeling, G. Madec, and R. WANNINKHOF. Strong sensitivity of Southern Ocean carbon uptake and nutrient cycling to wind stirring. *Biogeosciences*, 11(15):4077-4098 (doi:10.5194/bg-11-4077-2014) (2014).

SCHMID, C. Mean vertical and horizontal structure of the subtropical circulation in the South Atlantic from three-dimensional observed velocity fields. *Deep-Sea Research, Part I*, 91:50-71 (doi:10.1016/j.dsr.2014.04.015) (2014).

Schriewer, A., K.D. GOODWIN, C.D. SINIGALLIANO, A.M. Cox, D. WANLESS, J. BARTKOWIAK, D.L. Ebentier, K.T. Hanley, J. Ervin, L.A. Deering, O.C. Shanks, L.A. Peed, W.G. Meijer, J.F. Griffith, J. Santo Domingo, J.A. Jay, P.A. Holden, and S. Wuertz. Performance evaluation of canine-associated *Bacteroidales* assays in a multi-laboratory comparison study. *Water Research*, 47(18):6909-6920 (doi:10.1016/j.watres.2013.03.062) (2013).

SERRANO, X., I.B. Baums, K. O'Reilly, T.B. Smith, R.J. Jones, T.L. Shearer, F.L.D. Nunes, and A.C. Baker. Geographic differences in vertical connectivity in the Caribbean coral *Montastraea cavernosa* despite high levels of horizontal connectivity at shallow depths. *Molecular Ecology*, 23(17):4226-4240 (doi:10.1111/mec.12861) (2014).

Sheffield, J., S.J. Camargo, R. Fu, Q. Hu, X. Jiang, N. Johnson, K.B. Karinauskas, S.T. Kim, J. Kinter, S. Kumar, B. Langenbrunner, E. Maloney, A. Mariotti, J.E. Meyerson, J.D. Neelin, S. Nigam, Z. Pan, A. Ruiz-Barradas, R. Seager, Y.L. Serra, D.-Z. Sun, C. WANG, S.-P. Xie, J.-Y. Yu, T. Zhang, and M. Zhao. North American climate in CMIP5 experiments, Part II: Evaluation of historical simulations of intraseasonal to decadal variability. *Journal of Climate*, 26(23):9247-9290 (doi:10.1175/JCLI-D-12-00593.1) (2013).

Shpund, J., J.A. ZHANG, M. Pinsky, and A. Khain. Microphysical structure of the marine boundary layer under strong wind and sea spray formation as seen from a 2-D explicit microphysical model. Part III: Parameterization of height-dependent droplet size distribution. *Journal of the Atmospheric Sciences*, 71(6): 1914-1934 (doi:10.1175/JAS-D-12-0201.1) (2014).

SINIGALLIANO, C.D., J.S. Ervin, L.C. Van De Werfhorst, B.D. Badgley, E. Balleste, J. BARTKOWIAK, A.B. Boehm, M. Byappanahalli, K.D. GOODWIN, M. Gourmelon, J. Griffith, P.A. Holden, J. Jay, B. Layton, C. Lee, J. Lee, W.G. Meijer, R. Noble, M. Raith, H. Ryu, M.J. Sadowsky, A. Schriewer, D. Wang, D. WANLESS, R. Whitman, S. Wuertz, and J.W. Santo Domingo. Multi-laboratory evaluations of the performance of *Catellicoccus marimammalium* PCR assays developed to target gull fecal sources. *Water Research*, 47(18):6883-6896 (doi:10.1016/j.watres.2013.02.059) (2013).

Smeed, D.A., G.D. McCarthy, S.A. Cunningham, E. Frajka-Williams, D. Rayner, W.E. Johns, C.S. MEINEN, M.O. BARINGER, B.I. Moat, A. Duchez, and H.L. Bryden. Observed decline of the Atlantic meridional overturning circulation, 2004 to 2012. *Ocean Science*, 10(1):29-38 (doi:10.5194/os-10-29-2014) (2014).

SMITH, R.H., E.M. JOHNS, G.J. GONI, J. TRINANES, R. LUMPKIN, A.M. WOOD, C.R. KELBLE, S.R. CUMMINGS, J.T. Lamkin, and S. Privoznik. Oceanographic conditions in the Gulf of Mexico in July 2010, during the Deepwater Horizon oil spill. *Continental Shelf Research*, 77:118-131 (doi:10.1016/j.csr.2013.12.009) (2014).

Smith, R.K., M.T. MONTGOMERY, and G.L. Thomsen. Sensitivity of tropical-cyclone models to the surface drag coefficient in different boundary-layer schemes. *Quarterly Journal of the Royal Meteorological Society*, 140(680):792-804 (doi:10.1002/qj.2057) (2014).

Sraj, I., M. Iskandarani, W.C. THACKER, A. Srinivasan, and O.M. Knio. Drag parameter estimation using gradients and Hessian from a polynomial chaos model surrogate. *Monthly Weather Review*, 142(2):933-941 (doi:10.1175/MWR-D-13-00087.1) (2014).

Stewart, J.R., A.B. Boehm, E.A. Dubinsky, T.-T. Fong, K.D. GOODWIN, J.F. Griffith, R.T. Noble, O.C. Shanks, K. Vijayavel, and S.B. Weisberg. Recommendations following a multi-laboratory comparison of microbial source tracking methods. *Water Research*, 47(18):6829-6838 (doi:10.1016/j.watres.2013.04.063) (2013).

Thomsen, G.L., M.T. MONTGOMERY, and R.K. Smith. Sensitivity of tropical-cyclone intensification to perturbations in the surface drag coefficient. *Quarterly Journal of the Royal Meteorological Society*, 140(679):407-415 (doi:10.1002/qj.2048) (2014).

UHLHORN, E.W., B.W. KLOTZ, T. VUKICEVIC, P.D. REASOR, and R.F. ROGERS. Observed hurricane wind speed asymmetries and relationships to motion and environmental shear. *Monthly Weather Review*, 142(3): 1290-1311 (doi:10.1175/MWR-D-13-00249.1) (2014).

VAN HOIDONK, R., J.A. Maynard, D. MANZELLO, and S. Planes. Opposite latitudinal gradients in projected ocean acidification and bleaching impacts on coral reefs. *Global Change Biology*, 20(1):103-112 (doi:10.1111/gcb.12394) (2014).

van Lier-Walqui, M., T. VUKICEVIC, and D.J. Posselt. Linearization of microphysical parameterization uncertainty using multiplicative process perturbation parameters. *Monthly Weather Review*, 142(1):401-413 (doi:10.1175/MWR-D-13-00076.1) (2014).

VOLKOV, D.L. Do the North Atlantic winds drive the nonseasonal variability of the Arctic Ocean sea level? *Geophysical Research Letters*, 41(6):2041-2047 (doi: 10.1002/2013GL059065) (2014).

VOLKOV, D.L., and F.W. Landerer. Non-seasonal fluctuations of the Arctic Ocean mass observed by the GRACE satellites. *Journal of Geophysical Research*, 118(C12):6451-6460 (doi:10.1002/2013JC009341) (2013).

VUKICEVIC, T., E. UHLHORN, P. REASOR, and B. KLOTZ. A novel multiscale intensity metric for evaluation of tropical cyclone intensity forecasts. *Journal of the Atmospheric Sciences*, 71(4):1292-1304 (doi:10.1175/JAS-D-13-0153.1) (2014).

Walsh, E.J., I. PopStefanija, S.Y. Matrosov, J. Zhang, E. UHLHORN, and B. KLOTZ. Airborne rain-rate measurement with a wide swath radar altimeter. *Journal of Atmospheric and Oceanic Technology*, 31(4):860-875 (doi:10.1175/JTECH-D-13-00111.1) (2014).

WANG, C. The tropics: Atlantic warm pool. In *State of the Climate in 2013*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 95(7):S105-S109 (doi:10.1175/2014BAMS StateoftheClimate.1) (2014).

- WANG, C., L. ZHANG, S.-K. LEE, L. Wu, and C.R. Mechoso. A global perspective on CMIP5 climate model biases. *Nature Climate Change*, 4(3):201-205 (doi:10.1038/nclimate2118) (2014).
- Wang, W., X. Zhu, C. WANG, and A Kohl. Deep meridional overturning circulation in the Indian Ocean and its relation to the Indian Ocean diapole. *Journal of Climate*, 27(12):4508-4520 (doi:10.1175/JCLI-D-13-00472.1) (2014).
- WANG, X., and C. WANG. Different impacts of various El Niño events on the Indian Ocean dipole. *Climate Dynamics*, 42(3-4):991-1005 (doi:10.1007/s00382-0130171-2) (2014).
- WANNINKHOF, R. Relation between wind speed and gas exchange over the ocean revisited. *Limnology and Oceanography Methods*, 12:351-362 (doi:10.4319/lom.2014.12.351) (2014).
- Winokur, J., P. Conrad, I. Sraj, O. Knio, A. Srinivasan, W.C. THACKER, Y. Marzouk, and M. Iskandarani. A priori testing of sparse adaptive polynomial chaos expansions using an ocean general circulation model database. *Computational Geosciences*, 17(6):899-911 (doi:10.1007/s10596-013-9361-3) (2013).
- Zhang, B., W. Perrie, J.A. ZHANG, E.W. UHLHORN, and Y. He. High-resolution hurricane vector winds from C-band dual-polarization SAR observations. *Journal of Oceanic and Atmospheric Technology*, 31(2):272-286 (doi:10.1175/JTECH-D-13-00006.1) (2014).
- ZHANG, J.A., R.F. ROGERS, P.D. REASOR, E.W. UHLHORN, and F.D. MARKS. Asymmetric hurricane boundary layer structure from dropsonde composites in relation to the environmental vertical wind shear. *Monthly Weather Review*, 141(11):3968-3984 (doi:10.1175/MWF-D-12-00335.1) (2013).
- ZHANG, J.A., M.T. Montgomery, F.D. MARKS, and R.K. Smith. Comments on “Symmetric and asymmetric structures of hurricane boundary layer in coupled atmosphere-wave-ocean models and observations.” *Journal of the Atmospheric Sciences*, 71(7):2782-2785 (doi:10.1175/JAS-D-13-0207.1) (2014).
- ZHANG, J.-Z., and C.J. FISCHER. Carbon dynamics of Florida Bay: Spatiotemporal patterns and biological control. *Environmental Science and Technology*, 48(16):9161-9169 (doi:10.1021/es500510z) (2014).
- ZHANG, L., and C. WANG. Multidecadal North Atlantic sea surface temperature and Atlantic meridional overturning circulation variability in CMIP5 historical simulations. *Journal of Geophysical Research*, 118(C10):5772-5791 (doi:10.1002/jgrc.20390) (2013).
- ZHANG, L., C. WANG, and S.-K. LEE. Potential role of Atlantic warm pool-induced freshwater forcing in the Atlantic meridional overturning circulation: Ocean-sea ice model simulations. *Climate Dynamics*, 43(1-2):553-574 (doi:10.1007/s00382-013-2034-z) (2014).
- Zhu, X., P.J. Minnett, R. Berkelmans, J. HENDEE, and C. Manfrino. Diurnal warming in shallow coastal seas: Observations from the Caribbean and Great Barrier Reef regions. *Continental Shelf Research*, 82:85-98 (doi:10.1016/j.csr.2014.03.002) (2014).

FY-2015

- ABERSON, S.D., A. AKSOY, K.J. SELLWOOD, T. VUKICEVIC, and X. ZHANG. Assimilation of high-resolution tropical cyclone observations with an ensemble Kalman filter using HEDAS: Evaluation of 2008-2011 HWRF forecasts. *Monthly Weather Review*, 143(2):511-523 (doi:10.1175/MWR-D-14-00138.1) (2015).
- AKSOY, A. Parameter estimation. In *Encyclopedia of Atmospheric Sciences* (2nd edition), G.R. North, J. Pyle, and F. Zhang (eds.). Academic Press, Volume 4, 181-186 (doi:10.1016/B978-0-12-382225-3.00494-1) (2014).
- Ali, M.M., P.V. Nagamani, N. Sharma, R.T. Venu Gopal, M. Rajeevan, G.J. GONI, and M.A. Bourassa. Relationship between ocean mean temperatures and Indian Summer monsoon rainfall. *Atmospheric Science Letters*, 16(3):408-413 (doi:10.1002/asl2.576) (2015).
- AMORNTHAMMARONG, N., P.B. Ortner, J. HENDEE, and R. Woosley. A simplified coulometric method for multi-sample measurements of total dissolved inorganic carbon concentration in marine waters. *Analyst*, 139(20):5263-5270 (doi:10.1039/C4AN01049C) (2014).
- Anthony, K.R.N., P.A. Marshall, A. Abdulla, R. Beeden, C. Bergh, R. Black, C.M. Eakin, E.T. Game, M. Gooch, N.A.J. Graham, A. Green, S.F. Heron, R. VAN HOOIDONK, C. Knowland, S. Mangubhai, N. Marshall, J.A. Maynard, P. McGinnity, E. McLeod, P.J. Mumby, M. Nystrom, D. Obura, J. Oliver, H.P. Possingham, R.L. Pressey, G.P. Rowlands, J. Tamelander, D. Wachenfeld, and S. Wear. Operationalizing resilience for adaptive coral reef management under global environmental change. *Global Change Biology*, 21(1):48-61 (doi:10.1111/geb.12700) (2015).
- ATLAS, R., R.N. HOFFMAN, Z. Ma, G.D. Emmitt, S.A. Wood, S. Greco, S. Tucker, L. BUCCI, B. ANNANE, R.M. Hardesty, and S. MURILLO. Observing system simulation experiments (OSSEs) to evaluate the potential impact of an optical autocovariance wind lidar (OAWL) on numerical weather prediction. *Journal of Atmospheric and Oceanic Technology*, 32(9):1593-1613 (doi:10.1175/JTECH-D-15-0038.1) (2015).
- Balaguru, K., S. Taraphdar, L.R. Leung, G.R. FOLTZ, and J.A. Knaff. Cyclone-cyclone interactions through the ocean pathway. *Geophysical Research Letters*, 41(19):6855-6862 (doi:10.1002/2014GL061489) (2014).
- Balaguru, K., G.R. FOLTZ, L.R. Leung, E. D'Asaro, K.A. Emanuel, H. LIU, and S.E. Zedler. Dynamic potential intensity: An improved representation of the ocean's impact on tropical cyclones. *Geophysical Research Letters*, 42(16):6739-6746 (doi:10.1002/2015GL064822) (2015).
- Ballantyne, A.P., R. Andres, R. Houghton, B.D. Stocker, R. WANNINKHOF, W. Anderegg, L.A. Cooper, M. DeGrandpre, P.P. Tans, J.B. Miller, C. Alden, and J.W.C. White. Audit of the global carbon budget: Estimate errors and their impact on uptake uncertainty. *Biogeosciences*, 12(8):2565-2584 (doi:10.5194/bg-12-2565-2015) (2015).
- BARINGER, M.O., W.E. Johns, W.R. Hobbs, S. GARZOLI, S. DONG, and J. Willis. Global oceans: Meridional oceanic heat transport in the Atlantic Ocean. In *State of the Climate in 2014*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 96(7):S81-S82 (doi:10.1175/2015BAMSStateoftheClimate.1) (2015).
- BARINGER, M.O., G. McCarthy, J. Willis, D.A. Smeed, D. Rayner, W.E. Johns, C.S. MEINEN, M. Lankhorst, U. Send, S.A. Cunningham, and T.O. Kanzow. Global oceans: Meridional overturning circulation observations in the North Atlantic Ocean. In *State of the Climate in 2014*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 96(7):S78-S80 (doi:10.1175/2015BAMSStateoftheClimate.1) (2015).
- Bell, G.D., E.S. Blake, C.W. Landsea, S.B. GOLDENBERG, T.B. Kimberlain, R.J. Pasch, and J. Schemm. Tropical cyclones: Atlantic basin. In *State of the Climate in 2014*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 96(7):S101-S107 (doi:10.1175/2015BAMSStateoftheClimate.1) (2015).

- Bernardet, L., V. Tallapragada, S. Bao, S. Trahan, Y. Kwon, Q. Liu, M. Tong, M. Biswas, T. Brown, D. Stark, L. Carson, R. Yablonsky, E. UHLHORN, S. GOPALAKRISHNAN, X. ZHANG, T. Marchok, B. Kuo, and R. Gall. Community support and transition of research to operations for the Hurricane Weather Research and Forecasting model. *Bulletin of the American Meteorological Society*, 96(6):953-960 (doi:10.1175/BAMS-D-13-00093.1) (2015).
- Beron-Vera, F.J., M.J. Olascoaga, G. Haller, M. Farazmand, J. TRINANES, and Y. Wang. Dissipative inertial transport patterns near coherent Lagrangian eddies in the ocean. *Chaos*, 25:087412 (doi:10.1063/1.4928693) (2015).
- Boyer, T., J. Antonov, J. Reagan, C. SCHMID, and R. Locarnini. Global oceans: Subsurface salinity. In *State of the Climate in 2014*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 96(7):S74-S76 (doi:10.1175/2015BAMSSStateoftheClimate.1) (2015).
- Brown, P.J., L. Jullion, P. Landschützer, D.C.E. Bakker, A.C. Naveira Garabato, M.P. Meredith, S. Torres-Valdes, A.J. Watson, M. Hoppema, B. Loose, E.M. Jones, M. Telszewski, S.D. Jones, and R. WANNINKHOF. Carbon dynamics of the Weddell Gyre, Southern Ocean. *Global Biogeochemical Cycles*, 29(3):288-306 (doi:10.1002/2014GB005006) (2015).
- Campbell, A.M., J. Fleisher, C. SINIGALLIANO, J.R. White, and J.V. Lopez. Dynamics of marine bacterial community diversity of the coastal waters of the reefs, inlets, and wastewater outfalls of southeast Florida. *Microbiology Open*, 4(3):390-408 (doi:10.1002/mbo3.245) (2015).
- CARSEY, T., J. STAMATES, J.-Z. ZHANG, F. Bloetscher, D. Meeroff, and C. FEATHERSTONE. Point source nutrient fluxes from an urban coast: The Boynton (Florida) Inlet. *Environment and Natural Resources Research*, 5(2):121-134 (doi:10.5539/enrr.v5n2p121) (2015).
- CHEN, H., and S.G. GOPALAKRISHNAN. A study on the asymmetric rapid intensification of Hurricane Earl (2010) using the HWRF system. *Journal of the Atmospheric Sciences*, 72(2):531-550 (doi:10.1175/JAS-D-14-0097.1) (2015).
- CHEON, W.G., S.-K. LEE, A.L. Gordon, Y. LIU, C.-B. Cho, and J.J. Park. Replicating the 1970s' Weddell Polyna using a coupled ocean-sea ice model with reanalysis surface flux fields. *Geophysical Research Letters*, 42(13):5411-5418 (doi:10.1002/2015GL064364) (2015).
- CIONE, J.J. The relative roles of the ocean and atmosphere as revealed by buoy air-sea observations in hurricanes. *Monthly Weather Review*, 143(3):904-913 (doi:10.1175/MWR-D-13-00380.1) (2015).
- CUCURULL, L., and R.A. Anthes. Impact of loss of U.S. microwave and radio occultation observations in operational numerical weather prediction in support of the U.S. data gap mitigation activities. *Weather and Forecasting*, 30(2):255-269 (doi:10.1175/WAF-D-14-00077.1) (2015).
- Dohan, K., G. GONI, and R. LUMPKIN. Global oceans: Surface currents. In *State of the Climate in 2014*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 96(7):S76-S78 (doi:10.1175/2015BAMSSStateoftheClimate.1) (2015).
- DOMINGUES, R., G. GONI, F. BRINGAS, S.-K. LEE, H.-S. Kim, G. HALLIWELL, J. DONG, J. Morell, and L. Pomales. Upper-ocean response to Hurricane Gonzalo (2014): Salinity effects revealed by targeted and sustained underwater glider observations. *Geophysical Research Letters*, 42(17):7131-7138 (doi:10.1002/2015GL065378) (2015).
- DONG, S., G. GONI, and F. BRINGAS. Temporal variability of the South Atlantic Meridional Overturning Circulation between 20°S and 35°S. *Geophysical Research Letters*, 42(18):7655-7662 (doi:10.1002/2015GL065603) (2015).

- DONG, S., G. GONI, and R. LUMPKIN. Mixed-layer salinity budget in the SPURS region on seasonal to interannual time scales. *Oceanography*, 28(1):78-85 (doi:10.5670/oceanog.2015.05) (2015).
- DUNION, J.P., C.D. Thorncroft, and C.S. Velden. The tropical cyclone diurnal cycle of mature hurricanes. *Monthly Weather Review*, 142(10):3900-3919 (doi:10.1175/MWR-D-13-00191.1) (2014).
- ENOCHS, I.C., D.P. MANZELLO, R.D. CARLTON, D.M. Graham, R. Ruzicka, and M.A. Collela. Ocean acidification enhances the bioerosion of a common coral reef sponge: Implications for the persistence of the Florida Reef Tract. *Bulletin of Marine Science*, 91(2):271-290 (doi:10.5343/bms.2014.1045) (2015).
- Ekstrom, J.A., L. Suatoni, S.R. Cooley, L.H. Pendleton, G.G. Waldbusser, J.E. Cinner, J. Ritter, C. Langdon, R. VAN HOOIDONK, D. Gledhill, K. Wellman, M.W. Beck, L.M. Brander, D. Rittschof, C. Doherty, P.E.T. Edwards, and R. Portela. Vulnerability and adaptation of US shellfisheries to ocean acidification. *Nature Climate Change*, 5(3):207-214 (doi:10.1038/nclimate2508) (2015).
- Fanning, K.A., R.T. Masserini, J. Walsh, R. WANNINKHOF, K. SULLIVAN, J.I. Virmani, and C.A. Heill. An ammonium enrichment event in the surface ocean: Wind forcing and potential ramifications. *Marine Chemistry*, 174:26-34 (doi:10.1016/j.marchem.2015.03.018) (2015).
- Feely, R.A., R. WANNINKHOF, B. Carter, J.T. Mathis, and C.L. Sabine. Global oceans: Ocean carbon. In *State of the Climate in 2014*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 96(7):S87-S90 (doi:10.1175/2015BAMSStateoftheClimate.1) (2015).
- FLETCHER, P.J., M. Spranger, J.C. HENDEE, Y. Li, M. Clark, and G.A. Kiker. Decision tools for coral reef managers: Using participatory decision support to integrate potential climate impacts and informed decision making. *Global Ecology and Conservation*, 4:491-504 (doi:10.1016/j.gecco.2015.09.003) (2015).
- FOLTZ, G.R., K. Balaguru, and L.R. Leung. A reassessment of the integrated impact of tropical cyclones on surface chlorophyll in the western subtropical North Atlantic. *Geophysical Research Letters*, 42(4):1158-1164 (doi:10.1002/2015GL063222) (2015).
- FOLTZ, G.R., C. SCHMID, and R. LUMPKIN. Transport of surface freshwater from the equatorial to the subtropical North Atlantic Ocean. *Journal of Physical Oceanography*, 45(4):1086-1102 (doi:10.1175/JPO-D-14-0189.1) (2015).
- GARZOLI, S.L., S. DONG, R. Fine, C.S. MEINEN, R.C. PEREZ, C. SCHMID, E. van Sebille, and Q. YAO. The fate of the Deep Western Boundary Current in the South Atlantic. *Deep-Sea Research, Part I*, 103:125-136 (doi:10.1016/j.dsr.2015.05.008) (2015).
- GOES, M., M. BARINGER, and G. GONI. The impact of historical biases on the XBT-derived meridional overturning circulation estimates at 34°S. *Geophysical Research Letters*, 42(6):1848-1855 (doi:10.1002/2014GL061802) (2015).
- GOES, M., G. GONI, and S. DONG. An optimal XBT-based monitoring system for the South Atlantic meridional overturning circulation at 34°S. *Journal of Geophysical Research-Oceans*, 120(1):161-181 (doi:10.1002/2014JC010202) (2015).
- GOLDENBERG, S.B., S.G. GOPALAKRISHNAN, V. Tallapragada, T. QUIRINO, F. MARKS, S. Trahan, X. ZHANG, and R. ATLAS. The 2012 triply-nested, high-resolution operational version of the Hurricane Weather Research and Forecasting System (HWRF): Track and intensity forecast verifications. *Weather and Forecasting*, 30(3):710-729 (doi:10.1175/WAF-D-14-00098.1) (2015).
- GONI, G.J., J.A. Knaff, and I.-I. Lin. Tropical cyclones: Tropical cyclone heat potential. In *State of the Climate in 2014*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 96(7):S121-S122 (doi:10.1175/2015BAMSStateoftheClimate.1) (2015).

GONI, G.A., J.A. TRINANES, A. MacFadyen, D. Streett, M.J. Olascoaga, M.L. Imhoff, F. Muller-Karger, and M.A. Roffer. Variability of the Deepwater Horizon surface oil spill extent and its relationship to varying ocean currents and extreme weather conditions. In *Mathematical Modelling and Numerical Simulation of Oil Pollution Problems*, M. Ehrhardt (ed.). Springer, New York, 1-22 (2015).

Haddad, Z.S., J.L. Steward, H.-C. Tseng, T. VUKICEVIC, S.-H. Chen, and S. Hristova-Veleva. A data assimilation technique to account for the nonlinear dependence of scattering microwave observations of precipitation. *Journal of Geophysical Research-Atmospheres*, 120(11):5548-5563 (doi:10.1002/2015JD023107) (2015).

HALLIWELL, G.R., S. GOPALAKRISHNAN, F. MARKS, and D. WILLEY. Idealized study of ocean impacts on tropical cyclone intensity forecasts. *Monthly Weather Review*, 143(4):1142-1165 (doi:10.1175/MWR-D-14-0022.1) (2015).

HALLIWELL, G.R., V. Kourafalou, M. Le Henaff, L.K. Shay, and R. ATLAS. OSSE impact analysis of airborne ocean surveys for improving upper-ocean dynamical and thermodynamical forecasts in the Gulf of Mexico. *Progress in Oceanography*, 130:32-46 (doi:10.1016/j.pocean.2014.09.004) (2015).

Hazelton, A.T., R. ROGERS, and R.E. Hart. Shear-relative asymmetries in tropical cyclone eyewall slope. *Monthly Weather Review*, 143(3):883-903 (doi:10.1175/MWR-D-14-00122.1) (2015).

Heymsfield, A., and P. WILLIS. Cloud conditions favoring secondary ice particle production in tropical maritime convection. *Journal of the Atmospheric Sciences*, 71(12):4500-4526 (doi:10.1175/JAS-D-14-0093.1) (2014).

Jaimes, B., L.K. Shay, and E.W. UHLHORN. Enthalpy and momentum fluxes during Hurricane Earl relative to underlying ocean features. *Monthly Weather Review*, 143(1):111-131 (doi:10.1175/MWR-D-13-00277.1) (2015).

Jo, H.-S., S.-W. Yeh, and S.-K. LEE. Changes in the relationship in the SST variability between the tropical Pacific and the North Pacific across the 1998/99 regime shift. *Geophysical Research Letters*, 42(17):7171-7178 (doi:10.1002/2015GL065049) (2015).

JOHNS, E.M., B.A. Muhling, R.C. PEREZ, F.E. Muller-Karger, N. MELO, R.H. SMITH, J.T. Lamkin, T.L. Gerard, and E. Malca. Amazon River water in the northeastern Caribbean Sea and its effect on larval reef fish assemblages during April 2009. *Fisheries Oceanography*, 23(6):472-494 (doi:10.1111/fog.12082) (2014).

Johnson, G.C., K.E. McTaggart, and R. WANNINKHOFF. Antarctic bottom water temperature changes in the western South Atlantic from 1989 to 2014. *Journal of Geophysical Research-Oceans*, 119(12):8567-8577 (doi:10.1002/2014JC010367) (2014).

Karnauskas, M., M.J. Schirripa, J.K. Craig, G.S. COOK, C.R. KELBLE, J.J. Agar, B.A. Black, D.B. ENFIELD, D. Lindo-Atichati, B.A. Muhling, K.M. Purcell, P.M. Richards, and C. WANG. Evidence of climate-driven ecosystem reorganization in the Gulf of Mexico. *Global Change Biology*, 21(7):2554-2568 (doi:10.1111/gcb.12894) (2015).

KEARNEY, K.A., D. Tommasi, and C. Stock. Simulated ecosystem response to volcanic iron fertilization in the subarctic Pacific Ocean. *Fisheries Oceanography*, 24(5):395-413 (doi:10.1111/fog.12118) (2015).

KEARNEY, K.A., M. Butler, R. Glazer, C.R. KELBLE, J.E. Serafy, and E. Stabenau. Quantifying Florida Bay habitat suitability for fishes and invertebrates under climate change scenarios. *Environmental Management*, 55(4):836-856 (doi:10.1007/s00267-014-0336-5) (2015).

KLOTZ, B.W., and E.W. UHLHORN. Improved stepped frequency microwave radiometer tropical cyclone surface winds in heavy precipitation. *Journal of Atmospheric and Oceanic Technology*, 31(11):2392-2408 (doi:10.1175/JTECH-D-14-00028.1) (2014).

Kopf, A., M. Bicak, R. Kottmann, J. Schnetzer, I. Kostadinov, K. Lehmann, A. Fernandez-Guerra, C. Jeanthon, E. Rahav, M. Ullrich, A. Wichels, G. Gerdts, P. Polymenakou, G. Kotoulas, R. Siam, R.Z. Abdallah, E.C. Sonnenschein, T. Cariou, F. O'Gara, S. Jackson, S. Orlic, M. Steinke, J. Busch, B. Duarte, I. Cacador, J. Canning-Clode, O. Bobrova, V. Marteinsson, E. Reynisson, C.M. Loureiro, G.M. Luna, G.M. Quero, C.R. Loscher, A. Kremp, M.E. DeLorenzo, L. Ovreas, J. Tolman, J. LaRoche, A. Penna, M. Frischer, T. Davis, K. Barker, C.P. Meyer, S. Ramos, C. Magalhaes, F. Jude-Lemeilleur, M.L. Aguirre-Macedo, S. Wang, N. Poulton, S. Jones, R. Collin, J.A. Fuhrman, P. Conan, C. Alonso, N. Stambler, K. GOODWIN, M.M. Yakimov, F. Baltar, L. Bodrossy, J. Van De Kamp, D.M.F. Frampton, M. Ostrowski, P. Van Ruth, P. Malthouse, S. Claus, K. Deneudt, J. Mortelmans, S. Pitois, D. Wallom, I. Salter, R. Costa, D.C. Schroeder, M.M. Kandil, V. Amaral, F. Biancalana, R. Santana, M.L. Pedrotti, T. Yoshida, H. Ogata, T. Ingleton, K. Munnik, N. Rodriguez-Ezpeleta, V. Berteaux-Lecellier, P. Wecker, I. Cancio, D. Vaulot, C. Bienhold, H. Ghazal, B. Chaouni, S. Essayeh, S. Ettamimi, E.H. Zaid, N. Boukhatem, A. Bouali, R. Chahboune, S. Barrijal, M. Timinouni, F. El Otmani, M. Bennani, M. Mea, N. Todorova, V. Karamfilov, P. ten Hoopen, G. Cochrane, S. L'Haridon, K.C. Bizsel, A. Vezzi, F.M. Lauro, P. Martin, R.M. Jensen, J. Hinks, S. Gebbels, R. Rosselli, F. De Pascale, R. Schiavon, A. dos Santos, E. Villar, S. Pesant, B. Cataletto, F. Malfatti, R. Edirisinghe, J.A. Herrera Silveira, M. Barbier, V. Turk, T. Tinta, W.J. Fuller, I. Salihoglu, M. Serakinci, M.C. Ergoren, E. Bresnan, J. Iribarri, P.A. Fronth Nyhus, E. Bente, H.E. Karlsen, P.N. Golyshin, J.M. Gasol, S. Moncheva, N. Dzhembekova, Z. Johnson, C.D. SINIGALLIANO, M.L. GIDLEY, *et al.* The ocean sampling day consortium. *GigaScience*, 4:27 (doi:10.1186/s13742-015-0066-5) (2015).

Kumar, B.P., J. Vialard, M. Lengaigne, V.S.N. Murty, G.R. FOLTZ, M.J. McPhaden, S. Pous, and C. De Boyer Montegut. Processes of interannual mixed layer temperature variability in the thermocline ridge of the Indian Ocean. *Climate Dynamics*, 43(9-10):2377-2397 (doi:10.1007/s00382-014-2059-y) (2014).

Landschützer, P., N. Gruber, F.A. Haumann, C. Rödenbeck, D.C.E. Bakker, S. van Heuven, M. Hoppema, N. Metzl, C. Sweeney, T. Takahashi, B. Tilbrook, and R. WANNINKHOF. The reinvigoration of the Southern Ocean carbon sink. *Science*, 349(6253):1221-1224 (doi:10.1126/science.aab2620) (2015).

Le Quéré, C., R. Moriarty, R.M. Andrew, G.P. Peters, P. Ciais, P. Friedlingstein, S.D. Jones, S. Sitch, P. Tans, A. Arneth, T.A. Boden, L. Bopp, Y. Bozec, J.G. Canadell, L.P. Chini, F. Chevallier, C.E. Cosca, I. Harris, M. Hoppema, R.A. Houghton, J.I. House, A.K. Jain, T. Johannessen, E. Kato, R.F. Keeling, V. Kitidis, K. Klein Goldewijk, C. Koven, C.S. Landa, P. Landschützer, A. Lenton, I.D. Lima, G. Marland, J.T. Mathis, N. Metzl, Y. Nojiri, A. Olsen, T. Ono, S. Peng, W. Peters, B. Pfeil, B. Poulter, M.R. Raupach, P. Regnier, C. Rödenbeck, S. Saito, J.E. Salisbury, U. Schuster, J. Schwinger, R. Séférian, J. Segschneider, T. Steinhoff, B.D. Stocker, A.J. Sutton, T. Takahashi, B. Tilbrook, G.R. van der Werf, N. Viovy, Y.-P. Wang, R. WANNINKHOF, A. Wiltshire, and N. Zeng. Global carbon budget 2014. *Earth System Science Data*, 7(1):45-85 (doi:10.5194/essd-7-47-2015) (2015).

LEE, S.-K., P.N. DiNezio, E.-S. Chung, S.-W. Yeh, A.T. Wittenberg, and C. WANG. Spring persistence, transition, and resurgence of El Niño. *Geophysical Research Letters*, 41(23):8578-8585 (doi:10.1002/2014GL062484) (2014).

LEE, S.-K., W. Park, M.O. BARINGER, A.L. Gordon, B. Huber, and Y. LIU. Pacific origin of the abrupt increase in Indian Ocean heat content during the warming hiatus. *Nature Geoscience*, 8(6):445-449 (doi:10.1038/ngeo2438) (2015).

Li, X., X. Yang, W. Zheng, J.A. ZHANG, L.J. Pietrafesa, and W.G. Pichel. Synergistic use of satellite observations and numerical weather model to study atmospheric occluded fronts. *IEEE Transactions on Geoscience and Remote Sensing*, 53(9):5269-5279 (doi:10.1109/TGRS.2015.2420312) (2015).

Ling, Z., G. Wang, and C. WANG. Out-of-phase relationship between tropical cyclones generated locally in the South China Sea and non-locally from the northwest Pacific Ocean. *Climate Dynamics*, 45(3-4):1129-1136 (doi:10.1007/s00382-014-2362-7) (2015).

LIU, H., C. WANG, S.-K. LEE, and D.B. ENFIELD. Inhomogeneous influence of the Atlantic warm pool on United States precipitation. *Atmospheric Science Letters*, 16(1):63-69 (doi:10.1002/asl2.521) (2015).

- LIU, Y., S.-K. LEE, D.B. ENFIELD, B.A. Muhling, J.T. Lamkin, F.E. Muller-Karger, and M.A. Roffer. Potential impact of climate change on the Intra-Americas Seas: Part 1—A dynamic downscaling of the CMIP5 model projections. *Journal of Marine Systems*, 148:56-69 (doi:10.1016/j.marsys.2015.01.007) (2015).
- MAJUMDER, S., A. Tandon, D.L. Rudnick, and J.T. Farrar. Near-inertial kinetic energy budget of the mixed layer and shear evolution in the transition layer in the Arabian Sea during the monsoons. *Journal of Geophysical Research-Oceans*, 120(9):6492-6507 (doi:10.1002/2014JC010198) (2015).
- MANZELLO, D.P., I.C. ENOCHS, A. Bruckner, P.G. Renaud, G. KOLODZIEJ, D.A. Budd, R. CARLTON, and P.W. Glynn. Galapagos coral reef persistence after ENSO warming across an acidification gradient. *Geophysical Research Letters*, 41(24):9001-9008 (doi:10.1002/2014GL062501) (2014).
- MANZELLO, D.P., I.C. ENOCHS, G. KOLODZIEJ, and R. CARLTON. Recent decade of growth and calcification of *Orbicella faveolata* in the Florida Keys: An inshore-offshore comparison. *Marine Ecology Progress Series*, 521:81-89 (doi:10.3354/meps11085) (2015) (2015).
- MARKS, F.D. Hurricanes: Observations. In *Encyclopedia of Atmospheric Sciences* (2nd edition), G.R. North, J. Pyle, and F. Zhang (eds.). Academic Press, Volume 6, 35-56 (2014).
- Maynard, J., R. VAN HOIDONK, C.M. Eakin, M. Puotinen, M. Garren, G. Williams, S.F. Heron, J. Lamb, E. Weil, B. Willis, and C.D. Harvell. Projections of climate conditions that increase coral disease susceptibility and pathogen abundance and virulence. *Nature Climate Change*, 5(7):688-694 (doi:10.1038/nclimate2625) (2015).
- McCarthy, G.D., D.A. Smeed, W.E. Johns, E. Frajka-Williams, B.I. Moat, D. Rayner, M.O. BARINGER, C.S. MEINEN, J. Collins, and H.L. Bryden. Measuring the Atlantic Meridional Overturning Circulation at 26°N. *Progress in Oceanography*, 130:91-111 (doi:10.1016/j.pocean.2014.10.006) (2015).
- Ming, J., J.A. ZHANG, and R.F. ROGERS. Typhoon kinematic and thermodynamic boundary layer structure from dropsonde composites. *Journal of Geophysical Research-Atmospheres*, 120(8):3158-3172 (doi:10.1002/2014JD022640) (2015).
- Montgomery, M.T., J.A. ZHANG, and R.K. Smith. An analysis of the observed low-level structure of rapidly intensifying and mature Hurricane Earl (2010). *Quarterly Journal of the Royal Meteorological Society*, 140(684):2132-2146 (doi:10.1002/qj.2283) (2014).
- Muhling, B.A., Y. LIU, S.-K. LEE, J.T. Lamkin, M.A. Roffer, F. Muller-Karger, and J.F. Walter. Potential impact of climate change on the Intra-Americas Seas: Part 2—Implications for Atlantic bluefin tuna and skipjack tuna adult and larval habitats. *Journal of Marine Systems*, 148:1-13 (doi:10.1016/j.marsys.2015.01.010) (2015).
- Muller-Karger, F.E., J.P. Smith, S. Werner, R. Chen, M. Roffer, Y. LIU, B. Muhling, D. Lindo-Atichati, J. Lamkin, S. Cerdeira-Estrada, and D.B. ENFIELD. Natural variability of surface oceanographic conditions in the offshore Gulf of Mexico. *Progress in Oceanography*, 134:54-76 (doi:10.1016/j.pocean.2014.12.007) (2015).
- Oke, P.R., G. Larnicol, E.M. Jones, V. Kourafalou, A.K. Sperrevik, F. Carse, C.A.S. Tanajura, B. Mourre, M. Tonani, G.B. Brassington, M. Le Hénaff, G.R. HALLIWELL, R. ATLAS, A.M. Moore, C.A. Edwards, M.J. Martin, A.A. Sellar, A. Alvarez, P. De Mey, and M. Iskandarani. Assessing the impact of observations on ocean forecasts and reanalyses: Part 2, Regional applications. *Journal of Operational Oceanography*, 8(S1):s63-s79 (doi:10.1080/1755876X.2015.1022080) (2015).
- Patsavas, M.C., R.H. Byrne, B. Yang, R.A. Easley, R. WANNINKHOF, and X. Liu. Procedures for direct spectrophotometric determination of carbonate ion concentrations: Measurements in U.S. Gulf of Mexico and east coast waters. *Marine Chemistry*, 168:80-85 (doi:10.1016/j.marchem.2014.10.015) (2015).

- Peng, S., Y. Li, X. Gu, S. Chen, D. Wang, H. Wang, S. Zhang, W. Lv, C. WANG, B. Liu, D. Liu, Z Lai, W. Lai, S. Wang, Y. Feng, and J. Zhang. A real-time regional forecasting system established for the South China Sea and its performance in the track forecasts of tropical cyclones during 2011-2013. *Weather and Forecasting*, 30(2):471-485 (doi:10.1175/WAF-D-14-00070.1) (2015).
- Peng, S., Y.-K. Qian, R. LUMPKIN, Y. Du, D. Wang, and P. Li. Characteristics of the near-surface currents in the Indian Ocean as deduced from satellite-tracked surface drifters. Part I: Pseudo-Eulerian statistics. *Journal of Physical Oceanography*, 45(2):441-458 (doi:10.1175/JPO-D-14-0050.1) (2015).
- Peng, S., Y.-K. Qian, R. LUMPKIN, P. Li, D. Wang, and Y. Du. Characteristics of the near-surface currents in the Indian Ocean as deduced from satellite-tracked surface drifters. Part II: Lagrangian statistics. *Journal of Physical Oceanography*, 45(2):459-477 (doi:10.1175/JPO-D-14-0049.1) (2015).
- PEREZ, R.C., V. HORMANN, R. LUMPKIN, P. Brandt, W.E. Johns, F. Hernandez, C. SCHMID, and B. Bourles. Mean meridional currents in the central and eastern equatorial Atlantic. *Climate Dynamics*, 43(11):2943-2962 (doi:10.1007/s00382-013-1968-5) (2014).
- PEREZ, R.C., M.O. BARINGER, S. DONG, S.L. GARZOLI, M. GOES, G.J. GONI, R. LUMPKIN, C.S. MEINEN, R. Msadek, and U. RIVERO. Measuring the Atlantic meridional overturning circulation. *Marine Technology Society Journal*, 49(2):167-177 (doi:10.4031/MTSJ.49.2.14) (2015).
- Prive, N.C., Y. Xie, S. Koch, R. ATLAS, S.J. Majumdar, and R.N. Hoffman. An observing system simulation experiment for the unmanned aircraft system data impact on tropical cyclone track forecasts. *Monthly Weather Review*, 142(11):4357-4363 (doi:10.1175/MWR-D-14-00197.1) (2014).
- Qian, Y.-K., S. Peng, C.-X. Liang, and R. LUMPKIN. On the estimation of Lagrangian diffusivity: Influence of nonstationary mean flow. *Journal of Physical Oceanography*, 44(10):2796-2811 (doi:10.1175/JPO-D-14-0058.1) (2014).
- QUIRINO, T.S., J. DELGADO, and X. ZHANG. Improving the scalability of a hurricane forecast system in mixed-parallel environments. *Proceedings, 16th IEEE International Conference on High Performance Computing and Communications*, Paris, France, August 20-22, 2014. IEEE Computer Society, 276-281 (2015).
- REASOR, P.D., and M.T. Montgomery. Evaluation of a heuristic model for tropical cyclone resilience. *Journal of the Atmospheric Sciences*, 72(5):1765-1782 (doi:10.1175/JAS-D-14-0318.1) (2015).
- Reverdin, G., S. Morisset, L. Marie, D. Bourras, G. Sutherland, B. Ward, J. Salvador, J. Font, Y. Cuypers, L. Centurioni, V. Hormann, N. Koldziejczyk, J. Boutin, F. D'Ovidio, F. Nencioli, N. Martin, D. Diverres, G. Alory, and R. LUMPKIN. Surface salinity in the North Atlantic subtropical gyre during the STRASSE/SPURS summer 2012 cruise. *Oceanography*, 28(1):114-123 (doi:10.5670/oceanog.2015.09) (2015).
- Rios, A.F., L. Resplandy, M.I. Garcia-Ibañez, N.M. Fajar, A. Velo, X.A. Padin, R. WANNINKhof, R. Steinfeldt, G. Roson, and F.F. Perez. Decadal acidification in the water masses of the Atlantic Ocean. *Proceedings of the National Academy of Sciences USA*, 112(32):9950-9955 (doi:10.1073/pnas.1504613112) (2015).
- ROGERS, R.F., P.D. REASOR, and J.A. ZHANG. Multiscale structure and evolution of Earl (2010) during rapid intensification. *Monthly Weather Review*, 143(2):536-562 (doi:10.1175/MWR-D-14-00175.1) (2015).
- Rozoff, C.M., C.S. Velden, J. KAPLAN, J.P. Kossin, and A.J. Wimmers. Improvements in the probabilistic prediction of tropical cyclone rapid intensification with passive microwave observations. *Weather and Forecasting*, 30(4):1016-1038 (doi:10.1175/WAF-D-14-00109.1) (2015).

- Salisbury, J., D. Vandemark, B. Jonsson, W. Balch, S. Chakraborty, S. Lohrenz, B. Chapron, B. Hales, A. Mannino, J.T. Mathis, M. Reul, S.R. Signorini, R. WANNINKHOF, and K.K. Yates. How can present and future satellite missions support scientific studies that address ocean acidification? *Oceanography*, 28(2):108-121 (doi:10.5670/oceanog.2015.35) (2015).
- Simpson, R.H., and N.M. DORST. *Hurricane Pioneer: Memoirs of Bob Simpson*. American Meteorological Society (ISBN 9781935704751), 272 pp. (2015).
- Song, Z., H. LIU, C. WANG, L. Zhang, and F. Qiao. Evaluation of the eastern equatorial Pacific SST seasonal cycle in CMIP5 models. *Ocean Science*, 10(5):837-843 (doi:10.5194/os-10-837-2014) (2014).
- Susca-Lopata, G., J. Zawislak, E.J. Zipser, and R.F. ROGERS. The role of observed environmental conditions and precipitation evolution in the rapid intensification of Hurricane Earl (2010). *Monthly Weather Review*, 143(6):2207-2223 (doi:10.1175/MWR-D-14-00283.1) (2015).
- Sutton, A., D. MANZELLO, and B. Gintert. Coupling chemical and biological monitoring to understand the impact of ocean acidification on coral reef ecosystems. *Oceanography*, 28(2):28-29 (doi:10.5670/oceanog.2015.28) (2015).
- Towle, E.K., I.C. ENOCHS, and C. Landon. Threatened Caribbean coral is able to mitigate the adverse effects of ocean acidification on calcification by increasing feeding rate. *PLoS ONE*, 10(4):e0123394 (doi:10.1371/journal.pone.0123394 (2015).
- VAN HOOIDONK, R., J.A. Maynard, Y. LIU, and S.-K. LEE. Downscaled projections of Caribbean coral bleaching that can inform conservation planning. *Global Change Biology*, 21(9):3389-3401 (doi:10.1111/gcb.12901) (2015).
- WANG, C. Tropical cyclones: Atlantic warm pool. In *State of the Climate in 2014*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 96(7):S123-S124 (doi:10.1175/2015BAMS StateoftheClimate.1) (2015).
- Wang, J., K. Young, T. Hock, D. Lauritsen, D. Behringer, M. BLACK, P.G. Black, J. Franklin, J. Halverson, J. Molinari, L. Nguyen, T. Reale, J. Smith, B. Sun, Q. Wang, and J.A. ZHANG. A long-term, high-quality, high vertical resolution GPS dropsonde dataset for hurricane and other studies. *Bulletin of the American Meteorological Society*, 96(6):961-973 (doi:10.1175/BAMS-D-13.00203.1) (2015).
- WANG, X., C. WANG, G. Han, W. Li, and X. Wu. Effects of tropical cyclones on large-scale circulation and ocean heat transport in the South China Sea. *Climate Dynamics*, 43(12):3351-3366 (doi:10.1007/s00382-014-2109-5) (2014).
- Wang, X.D., C. WANG, L. ZHANG, and X. Wang. Multidecadal variability of tropical cyclone rapid intensification in the western North Pacific. *Journal of Climate*, 28(9):3806-3820 (doi:10.1175/JCLI-D-14-00400.1) (2015).
- WANNINKHOF, R., L. BARBERO, R. Byrne, W.-J. Cai, W.-J. Huang, J.-Z. ZHANG, M. BARINGER, and C. Langdon. Ocean acidification along the gulf coast and east coast of the USA. *Continental Shelf Research*, 98:54-71 (doi:10.1016/j.csr.2015.02.008) (2015).
- Yan, Y., G. Wang, C. WANG, and J. Su. Low-salinity water off West Luzon Island in summer. *Journal of Geophysical Research-Oceans*, 120(4):3011-3021 (doi:10.1002/2014JC010465) (2015).
- Yang, B., R.H. Byrne, and R. WANNINKHOF. Subannual variability of total alkalinity distributions in the northeastern Gulf of Mexico. *Journal of Geophysical Research-Oceans*, 120(5):3805-3816 (doi:10.1002/2015JC010780) (2015).

- Yang, L., Y. Du, D. Wang, C. WANG, and X. Wang. Impact of intraseasonal oscillation on the tropical cyclone track in the South China Sea. *Climate Dynamics*, 44(5-6):1505-1519 (doi:10.1007/s00382-014-2180-y) (2015).
- Yates, K.K., C. Turley, B.M. Hopkinson, A.E. Todgham, J.N. Cross, H. Greening, P. Williamson, R. VAN HOOIDONK, D.D. Deheyn, and Z. Johnson. Transdisciplinary science: A path to understanding the interactions among ocean acidification, ecosystems, and society. *Oceanography*, 28(2):212-225 (doi:10.5670/oceanog.2015.43) (2015).
- Yeh, S.-W., X. Wang, C. WANG, and B. Dewitte. On the relationship between the North Pacific climate variability and the Central Pacific El Niño. *Journal of Climate*, 28(2):663-677 (doi:10.1175/JCLI-D-14-00137.1) (2015).
- Zhang, D.-L., L. Zhu, X. ZHANG, and V. Tallapragada. Sensitivity of idealized hurricane intensity and structures under varying background flows and initial vortex intensities to different vertical resolutions in HWRF. *Monthly Weather Review*, 143(3):914-932 (doi:10.1175/MWR-D-14-00102.1) (2015).
- ZHANG, J.A., D.S. Nolan, R.F. ROGERS, and V. Tallapragada. Evaluating the impact of improvements in the boundary layer parameterization on hurricane intensity and structure forecasts in HWRF. *Monthly Weather Review*, 143(8):3136-3155 (doi:10.1175/MWR-D-14-00339.1) (2015).
- Zhang, L., C. WANG, Z. Song, and S.-K. LEE. Remote effect of the model cold bias in the tropical North Atlantic on the warm bias in the tropical southeastern Pacific. *Journal of Advances in Modeling Earth Systems*, 6(4):1016-1026 (doi:10.1002/2014MS000338) (2014).
- Zhang, M., B.N. Stamos, N. AMORNTHAMMARONG, and P.K. Dasgupta. Capillary scale admittance detection. *Analytical Chemistry*, 86(23):11538-11546 (doi:10.1021/ac503245a) (2014).

FY-2016

Abarca, S.F., M.T. Montgomery, S.A. Braun, and J. DUNION. On the secondary eyewall formation of Hurricane Edouard (2014). *Monthly Weather Review*, 144(9):3321-3331 (doi:10.1175/MWR-D-15-0421.1) (2016).

Anderson, B.T., and R.C. PEREZ. ENSO and non-ENSO induced charging and discharging of the equatorial Pacific. *Climate Dynamics*, 45(9-10):2309-2327 (doi:10.1007/s00382-015-2472-x) (2015).

ATLAS, R., V. Tallapragada, and S. GOPALAKRISHNAN. Advances in tropical cyclone intensity forecasts. *Marine Technology Society Journal*, 49(6):149-160 (doi:10.4031/MTSJ.49.6.2) (2015).

ATLAS, R., L. BUCCI, B. ANNANE, R. HOFFMAN, and S. MURILLO. Observing System Simulation Experiments to assess the potential impact of new observing systems on hurricane forecasting. *Marine Technology Society Journal*, 49(6):140-148 (doi:10.4031/MTSJ.49.6.3) (2015).

Bakker, D.C.E., B. Pfeil, C.S. Landa, N. Metzl, K.M. O'Brien, A. Olsen, K. Smith, C. Cosca, S. Harasawa, S.D. Jones, S.-I. Nakaoka, Y. Nojiri, U. Schuster, T. Steinhoff, C. Sweeney, T. Takahashi, B. Tilbrook, C. Wada, R. WANNINKHOF, S.R. Alin, C.F. Balestrini, L. BARBERO, N.R. Bates, A.A. Bianchi, F. Bonou, J. Boutin, Y. Bozec, E.F. Burger, W.-J. Cai, R.D. CASTLE, L. Chen, M. Chierici, K. Currie, W. Evans, C. FEATHERSTONE, R.A. Feely, A. Fransson, C. Goyet, N. Greenwood, L. Gregor, S. Hankin, N.J. Hardman-Mountford, J. Harlay, J. Hauck, M. Hoppema, M.P. Humphreys, C.W. Hunt, B. HUSS, J.S.P. Ibánhez, T. Johannessen, R. Keeling, V. Kitidis, A. Kötzinger, A. Kozyr, E. Krasakopoulou, A. Kuwata, P. Landschützer, S.K. Lauvset, N. Lefèvre, C. Lo Monaco, A. Manke, J.T. Mathis, L. Merlivat, F.J. Millero, P.M.S. Monteiro, D.R. Munro, A. Murata, T. Newberger, A.M. Omar, T. Ono, K. Paterson, D. Pearce, D. PIERROT, L.L. Robbins, S. Saito, J. Salisbury, R. Schlitzer, B. Schneider, R. Schweitzer, R. Sieger, I. Skjelvan, K.F. SULLIVAN, S.C. Sutherland, A.J. Sutton, K. Tadokoro, M. Telszewski, M. Tuma, S.M.A.C. Van Heuven, D. Vandemark, B. Ward, A.J. Watson, and S. Xu. A multi-decade record of high-quality fCO₂ data in version 3 of the Surface Ocean CO₂ Atlas (SOCAT). *Earth System Science Data*, 8:383-413 (doi:10.5194/essd-8-383-2016) (2016).

Balaguru, K., L.R. Leung, J. Lu, and G.R. FOLTZ. A meridional dipole in pre-monsoon Bay of Bengal tropical cyclone activity induced by ENSO. *Journal of Geophysical Research-Atmospheres*, 121(12):6954-6968 (doi:10.1002/2016JD024936) (2016).

BARINGER, M.O., M. Lankhorst, D. VOLKOV, S. GARZOLI, S. DONG, U. Send, and C.S. MEINEN. Meridional overturning circulation observations in the North Atlantic Ocean. In *State of the Climate in 2015*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 97(8):S84-S87 (doi:10.1175/2016BAMSStateoftheClimate.1) (2016).

Bell, G.D., C.W. Landsea, E.S. Blake, J. Schemm, S.B. GOLDENBERG, T.B. Kimberlain, and R.J. Pasch. Atlantic basin. In *State of the Climate in 2015*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 97(8):S105-S108 (doi:10.1175/2016BAMSStateoftheClimate.1) (2016).

Boukabara, S.A., I. Moradi, R. ATLAS, S.P.F. CASEY, L. CUCURULL, R.N. HOFFMAN, K. Ide, V.K. Kumar, R. Li, Z. Li, M. Masutani, N. Shahroudi, J. Woollen, and Y. Zhou. Community global Observing System Simulation Experiment (OSSE) package: CGOP—Description and usage. *Journal of Atmospheric and Oceanic Technology*, 33(8):1759-1777 (doi:10.1175/JTECH-D-16-0012.1) (2016).

BRINGAS, F., and G. GONI. Early dynamics of deep blue XBT probes. *Journal of Atmospheric and Oceanic Technology*, 32(12):2253-2263 (doi:10.1175/JTECH-D-15-0048.1) (2015).

Camp, E.F., D.J. Smith, C. Evenhuis, I. ENOCHS, D. MANZELLO, S. Woodcock, and D.J. Suggett. Acclimatization to high-variance habitats does not enhance physiological tolerance of two key Caribbean corals to future temperature and pH. *Philosophical Transactions of the Royal Society B*, 383(1831):20160442 (doi:10.1098/rspb.2016.0442) (2016).

- Carrillo, L., E.M. JOHNS, R.H. SMITH, J.T. Lamkin, and J.L. Largier. Pathways and hydrography in the Mesoamerican barrier reef system, Part I: Circulation. *Continental Shelf Research*, 109:164-176 (doi:10.1016/j.csr.2015.09.014) (2015).
- Carrillo, L., E.M. JOHNS, R.H. SMITH, J.T. Lamkin, and J.L. Largier. Pathways and hydrography in the Mesoamerican barrier reef system, Part 2: Water masses and thermohaline structure. *Continental Shelf Research*, 120:41-58 (doi:10.1016/j.csr.2016.03.014) (2016).
- Cheng, L., J. Abraham, G. GONI, T. Boyer, S. Wijffels, R. Cowley, V. Gouretski, F. Reseghetti, S. Kizu, S. DONG, F. BRINGAS, M. GOES, L. Houpert, J. Sprintall, and J. Zhu. XBT science: Assessment of instrumental biases and errors. *Bulletin of the American Meteorological Society*, 97(6):924-933 (doi:10.1175/BAMS-D-15-00031.1) (2016).
- Christiansen, F., N.F. PUTMAN, R. Farman, D.M. Parker, M.R. Rice, J.J. Polovina, G.H. Balazs, and G.C. Hays. Spatial variation in directional swimming enables juvenile sea turtles to reach and remain in productive waters. *Marine Ecology Progress Series*, 557:247-259 (doi:10.3354/meps11874) (2016).
- CIONE, J.J., E.A. KALINA, E.W. UHLHORN, A.M. Farber, and A.B. Damiano. Coyote unmanned aircraft system observations in Hurricane Edouard (2014). *Earth and Space Science*, 3(9):370-380 (doi:10.1002/2016EA000187) (2016).
- Cortés, J., I.C. ENOCHS, J. Sibaja-Cordero, L. Hernández, J.J. Alvarado, O. Breedy, J.A. Cruz-Barraza, O. Esquivel-Garrote, C. Fernández-García, A. Hermosillo, K.L. Kaiser, P. Medina-Rosas, A. Morales-Ramírez, C. Pacheco, H. Reyes-Bonilla, R. Riosmena-Rodríguez, C. Sánchez-Noguera, F.A. Zapata, E. Wieters, and A. Pérez-Matus. Marine biodiversity of eastern tropical Pacific coral reefs. In *Coral Reefs of the Eastern Tropical Pacific: Persistence and Loss in a Dynamic Environment*, P.W. Glynn, D.P. Manzello, and I. Enochs (eds.). Springer Netherlands (doi:10.1007/978-94-017-7499-4_7), 203-250 (2016).
- Dmitrenko, I.A., S.A. Kirillov, A. Forest, Y. Gratton, D.L. VOLKOV, W.J. Williams, J.V. Lukovich, C. Belanger, and D.G. Barber. Shelfbreak current over the Canadian Beaufort Sea continental slope: Wind-driven events in January 2005. *Journal of Geophysical Research-Oceans*, 121(4):2447-2468 (doi:10.1002/2015JC011514) (2016).
- DOMINGUES, R., G. GONI, F. BRINGAS, B. Muhling, D. Lindo-Atichati, and J. Walter. Variability of preferred environmental conditions for Atlantic bluefin tuna (*Thunnus thynnus*) larvae in the Gulf of Mexico during 1993-2011. *Fisheries Oceanography*, 25(3):320-336 (doi:10.1111/fog.12152) (2016).
- Eisenlord, M.E., M.L. Groner, R.M. Yoshioka, J. Elliott, J. Maynard, S. Fradkin, M. Turner, K. Pyne, N. Rivlin, R. VAN HOODONK, and C.D. Harvell. Ochre star mortality during the 2014 wasting disease epizootic: Role of population size structure and temperature. *Philosophical Transactions of the Royal Society B*, 371(1689): 20150212 (doi:10.1098/rstb.2015.0212) (2016).
- Elipot, S., R. LUMPKIN, R.C. PEREZ, J.M. Lilly, J.J. Early, and A.M. Sykulski. A global surface drifter data set at hourly resolution. *Journal of Geophysical Research-Oceans*, 121(5):2937-2966 (doi:10.1002/2016JC011716) (2016).
- ENOCHS, I.C., and P.W. Glynn. Corallivory in the eastern Pacific. In *Coral Reefs of the Eastern Tropical Pacific: Persistence and Loss in a Dynamic Environment*, P.W. Glynn, D.P. Manzello, and I. Enochs (eds.). Springer Netherlands (doi:10.1007/978-94-017-7499-4_10), 315-337 (2016).
- ENOCHS, I.C., and P.W. Glynn. Trophodynamics of eastern Pacific coral reefs. In *Coral Reefs of the Eastern Tropical Pacific: Persistence and Loss in a Dynamic Environment*, P.W. Glynn, D.P. Manzello, and I. Enochs (eds.). Springer Netherlands (doi:10.1007/978-94-017-7499-4_9), 291-314 (2016).

- ENOCHS, I.C., D.P. MANZELLO, H.H. Wirshing, R. CARLTON, and J. Serafy. Micro-CT analysis of the Caribbean octocoral *Eunicea flexuosa* subjected to elevated pCO₂. *ICES Journal of Marine Science*, 73(3):910-919 (doi:10.1093/icesjms/fsv159) (2016).
- ENOCHS, I.C., D.P. MANZELLO, A. Tribollet, L. VALENTINO, G. KOLODZIEJ, E.M. Donham, M.D. Fitchett, R. CARLTON, and N.N. Price. Elevated colonization of microborers at a volcanically acidified coral reef. *PLoS ONE*, 11(7):e0159818 (doi:10.1371/journal.pone.0159818) (2016).
- ENOCHS, I.C., D.P. MANZELLO, E.M. Donham, G. KOLODZIEJ, R. Okano, L. Johnston, C. Young, J. Iguel, C.B. Edwards, M.D. Fox, L. VALENTINO, S. Johnson, D. Benavente, S.J. Clark, R. CARLTON, T. Burton, Y. Eynaud, and N.N. Price. Shift from coral to macroalgae dominance on a volcanically acidified reef. *Nature Climate Change*, 5(12):1083-1088 (doi:10.1038/nclimate2758) (2015).
- Feely, R.A., R. WANNINKHOF, B.R. Carter, J.N. Cross, J.T. Mathis, C.L. Sabine, C.E. Cosca, and J.A. TRINANES. Global ocean carbon cycle. In *State of the Climate in 2015*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 97(8):S89-S92 (doi:10.1175/2016BAMSStateoftheClimate.1) (2016).
- Flower, H., M. Rains, D. Lewis, J.-Z. ZHANG, and R. Price. Control of phosphorus concentration adsorption and desorption in shallow groundwater of subtropical carbonate estuary. *Estuarine, Coastal and Shelf Science*, 169:238-247 (doi:10.1016/j.ecss.2015.10.024) (2016).
- Frajka-Williams, E., C.S. MEINEN, W.E. Johns, D.A. Smeed, A. Duchez, A.J. Lawrence, D.A. Cuthbertson, G.D. McCarthy, H.L. Bryden, M.O. BARINGER, B.I. Moat, and D. Rayner. Compensation between meridional flow components of the Atlantic MOC at 26°N. *Ocean Science*, 12(2):481-493 (doi:10.5194/os-12-481-2016) (2016).
- Glynn, P.W., and D.P. MANZELLO. Bioerosion and coral reef growth: A dynamic balance. In *Coral Reefs in the Anthropocene*, C. Birkeland (ed.). Springer, Dordrecht (doi:10.1007/978-94-017-7249-5), 67-97 (2015).
- Glynn, P.W., D.P. MANZELLO, and I.C. ENOCHS (eds.). *Coral Reefs of the Eastern Tropical Pacific: Persistence and Loss in a Dynamic Environment*. Springer Netherlands (doi:10.1007/978-94-017-7499-4), 657 pp. (2016).
- GONI, G.J., J.A. Knaff, and I.-I. Lin. Tropical cyclone heat potential. In *State of the Climate in 2015*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 97(8):S120-S123 (doi:10.1175/2016BAMSStateoftheClimate.1) (2016).
- GOODWIN, K.D., S. Gruber, M. Vondrak, and A. Crumpacker. Watershed assessment with beach microbial source tracking (MST) and outcomes of resulting gull management. *Environmental Science and Technology*, 50(18):9900-9906 (doi:10.1021/acs.est.6b02564) (2016).
- Guimond, S.R., G.M. Heymsfield, P.D. REASOR, and A.C. Didlake. The rapid intensification of Hurricane Karl (2010): New remote sensing observations of convective bursts from the Global Hawk platform. *Journal of the Atmospheric Sciences*, 73(9):3617-3639 (doi:10.1175/JAS-D-16-0026.1) (2016).
- Haugland, R.A., S. Siefring, M. Varma, K.H. Oshima, M. Sivaganesan, Y. Cao, M. Raith, J. Griffith, S.B. Weisberg, R.T. Noble, A.D. Blackwood, J. Kinzelman, T. Anan'eva, R.N. Bushon, E.A. Stelzer, V.J. Harwood, K.V. Gordon, and C. SINIGALLIANO. Multi-laboratory survey of qPCR enterococci analysis method performance in U.S. coastal and inland surface waters. *Journal of Microbiological Methods*, 123:114-125 (doi:10.1016/j.mimet.2016.01.017) (2016).
- Ho, D.T., and R. WANNINKHOF. Air-sea gas exchange in the North Atlantic: ³He/SF₆ experiment during GasEx-98. *Tellus B*, 68:30198 (doi:10.3402/tellusb.v68.30198) (2016).

HOFFMAN, R.N., and R. ATLAS. Future observing system simulation experiments. *Bulletin of the American Meteorological Society*, 97(9):1601-1616 (doi:10.1175/BAMS-D-15-00200.1) (2016).

HOOPER, J.A., M.O. BARINGER, L.C. St. Laurent, W.K. Dewar, and D. Nowacek. Dissipation processes in the Tongue of the Ocean. *Journal of Geophysical Research-Oceans*, 121(5):3159-3170 (doi:10.1002/2015JC011165) (2016).

Humphreys, A.F., J. Halfar, F. Rivera, D. MANZELLO, C.E. Reymond, H. Westphal, and B. Riegl. Variable El Niño-Southern Oscillation influence on biofacies dynamics of eastern Pacific shallow-water carbonate systems. *Geology*, 44(7):571-574 (doi:10.1130/G37745.1) (2016).

Iskandarani, M., M. LE HENAFF, W.C. Thacker, A. Srinivasan, and O.M. Knio. Quantifying uncertainty in Gulf of Mexico forecasts stemming from uncertain initial conditions. *Journal of Geophysical Research-Oceans*, 121(7):4819-4832 (doi:10.1002/2015JC011573) (2016).

Johnson, G.C., J. Reagan, J.M. Lyman, T. Boyer, C. SCHMID, and R. Locarnini. Salinity. In *State of the Climate in 2015*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 97(8):S70-S74 (doi:10.1175/2016BAMSSStateoftheClimate.1) (2016).

KAPLAN, J., C.M. Rozoff, M. DeMaria, C.R. Sampson, J.P. Kossin, C.S. Velden, J.J. CIONE, J.P. DUNION, J.A. Knaff, J.A. ZHANG, J.F. Dostalek, J.D. Hawkins, T.F. Lee, and J.E. Solbrig. Evaluating environmental impacts on tropical cyclone rapid intensification predictability utilizing statistical models. *Weather and Forecasting*, 30(5):1374-1396 (doi:10.1175/WAF-D-15-0032.1) (2015).

Keith, S.A., J.A. Maynard, A.J. Edwards, J.R. Guest, A.G. Bauman, R. VAN HOODONK, S.F. Heron, M.L. Berumen, J. Bouwmeester, S. Piromvaragorn, C. Rahbek, and A.H. Baird. Coral mass spawning predicted by rapid seasonal rise in ocean temperature. *Proceedings of the Royal Society of London B*, 283(1830):20160011 (doi:10.1098/rspb.2016.0011) (2016).

Kellner, O., D. Niyogi, and F.D. MARKS. Contribution of landfalling tropical system rainfall to the hydroclimate of the eastern U.S. Corn belt, 1981-2012. *Weather and Climate Extremes*, 13:54-67 (doi:10.1016/j.wace.2016.06.001) (2016).

Lamouroux, J., G. Charria, P. De Mey, S. Raynaud, C. Heyraud, P. Craneguy, F. Dumas, and M. LE HENAFF. Objective assessment of the contribution of the RECOPESCA network to the monitoring of 3D coastal ocean variables in the Bay of Biscay and the English Channel. *Ocean Dynamics*, 66(4):567-588 (doi:10.1007/s10236-016-0938-y) (2016).

Le Quéré, C., R. Moriarty, R.M. Andrew, J.G. Canadell, S. Sitch, J.I. Korsbakken, P. Friedlingstein, G.P. Peters, R.J. Andres, T.A. Boden, R.A. Houghton, J.I. House, R.F. Keeling, P. Tans, A. Arneth, D.C.E. Bakker, L. BARBERO, L. Bopp, J. Chang, F. Chevallier, L.P. Chini, P. Ciais, M. Fader, R.A. Feely, T. Gkrizalis, I. Harris, J. Hauck, T. Ilyina, A.K. Jain, E. Kato, V. Kitidis, K. Klein Goldewijk, C. Koven, P. Landschützer, S.K. Lauvset, N. Lefèvre, A. Lenton, I.D. Lima, N. Metzl, F. Millero, D.R. Munro, A. Murata, J.E.M.S. Nabel, S. Nakao, Y. Nojiri, K. O'Brien, A. Olsen, T. Ono, F.F. Pérez, B. Pfeil, D. PIERROT, B. Poulter, G. Rehder, C. Rödenbeck, S. Saito, U. Schuster, J. Schwinger, R. Séférian, T. Steinhoff, B.D. Stocker, A.J. Sutton, T. Takahashi, B. Tilbrook, I.T. van der Laan-Luijkx, G.R. van der Werf, S. van Heuven, D. Vandemark, N. Viovy, A. Wiltshire, S. Zaehle, and N. Zeng. Global carbon budget 2015. *Earth System Science Data*, 7(2):349-396 (doi:10.5194/essd-7-349-2015) (2015).

LE HENAFF, M., and V.H. Kourafalou. Mississippi waters reaching South Florida reefs under no flood conditions: Synthesis of observing and modeling system findings. *Ocean Dynamics*, 66(3):435-459 (doi:10.1007/s10236-016-0932-4) (2016).

- Lee, P., R. ATLAS, G. Carmichael, Y. Tang, B. Pierce, A.P. Bazar, L. Pan, H. Kim, D. Tong, and W. Chen. Observing System Simulation Experiments (OSSEs) using a regional air quality application for evaluation. In *Air Pollution Modeling and its Application XXIV*, D.G. Steyn and N. Chaumerliac (eds.). Springer International Publishing, 599-605 (doi:10.1007/978-3-319-24478-5_97) (2016).
- LEE, S.-K., A.T. Wittenberg, D.B. ENFIELD, S.J. Weaver, C. WANG, and R. ATLAS. U.S. regional tornado outbreaks and their links to the springtime ENSO phases and North Atlantic SST variability. *Environmental Research Letters*, 11(4):044008 (doi:10.1088/1748-9326/11/4/044008) (2016).
- Lee, T.N., N. Melo, N. Smith, E.M. JOHNS, C.R. KELBLE, R.H. SMITH, and P.B. Ortner. Circulation and water renewal of Florida Bay, USA. *Bulletin of Marine Science*, 92(2):153-180 (doi:10.5343/bms.2015.1019) (2016).
- Legler, D.M., H. J. Freeland, R. LUMPKIN, G. Ball, M.J. McPhaden, S. North, R. Cowley, G.J. GONI, U. Send and M.A. Merrifield. The current status of the real-time in situ Global Ocean Observing System for operational oceanography. *Journal of Operational Oceanography*, 8(S2):s189-s200 (doi:10.1080/1755876X.2015.1049883) (2015).
- Li, H., R.L. Sriver, and M. GOES. Modeled sensitivity of the northwestern Pacific upper-ocean response to tropical cyclones in a fully coupled climate model with varying ocean grid resolution. *Journal of Geophysical Research-Oceans*, 121(1):586-601 (doi:10.1002/2015JC011226) (2016).
- Liang, Y.-C., J.-Y. Yu, M.-H. Lo, and C. WANG. The changing influence of El Niño on the Great Plains low-level jet. *Atmospheric Science Letters*, 16(4):512-517 (doi:10.1002/asl.590) (2015).
- Lima, M.O., M. Cirano, M.M. Mata, M. GOES, G. GONI, and M. BARINGER. An assessment of the Brazil Current baroclinic structure and variability near 22°S in distinct ocean forecasting and analysis systems. *Ocean Dynamics*, 66(6):893-916 (doi:10.1007/s10236-016-0959-6) (2016).
- LOPEZ, H., and B.P. Kirtman. Investigating the seasonal predictability of significant wave height in the west Pacific and Indian Oceans. *Geophysical Research Letters*, 43(7):3451-3458 (doi:10.1002/2016GL068653) (2016).
- LOPEZ, H., S. DONG, S.-K. LEE, and E. Campos. Remote influence of Interdecadal Pacific Oscillation on the South Atlantic meridional overturning circulation variability. *Geophysical Research Letters*, 43(15):8250-8258 (doi:10.1002/2016GL069067) (2016).
- LOPEZ, H., S. DONG, S.-K. LEE, and G. GONI. Decadal modulations of interhemispheric global atmospheric circulations and monsoons by the South Atlantic Meridional Overturning Circulation. *Journal of Climate*, 29(5):1831-1851 (doi:10.1175/JCLI-D-15-0491.1) (2016).
- LUMPKIN, R. Global characteristics of coherent vortices from surface drifter trajectories. *Journal of Geophysical Research-Oceans*, 121(2):1306-1321 (doi:10.1002/2015JC011435) (2016).
- LUMPKIN, R., L. Centurioni, and R.C. PEREZ. Fulfilling observing system implementation requirements with the global drifter array. *Journal of Atmospheric and Oceanic Technology*, 33(4):685-695 (doi:10.1175/JTECH-D-15-0255.1) (2016).
- LUMPKIN, R., G. GONI, and K. Dohan. Surface currents. In *State of the Climate in 2015*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 97(8):S82-S84 (doi:10.1175/2016BAMS StateoftheClimate.1) (2016).
- Mai, M., B. Zhang, X. Li, P.A. Hwang, and J.A. ZHANG. Application of AMSR-E and AMSR2 low frequency channel brightness temperature data for hurricane wind retrievals. *IEEE Transactions on Geoscience and Remote Sensing*, 54(8):4501-4512 (doi:10.1109/TGRS.2016.2543502) (2016).

MAJUMDER, S., C. SCHMID, and G. HALLIWELL. An observations and model-based analysis of meridional transports in the South Atlantic. *Journal of Geophysical Research-Oceans*, 121(8):5622-5638 (doi:10.1002/2016JC011693) (2016).

MANZELLO, D.P. Rapid recent warming of coral reefs in the Florida Keys. *Nature Scientific Reports*, 5:16762 (doi:10.1038/srep16762) (2015).

MANZELLO, D., C.M. Eakin, and P.W. Glynn. Effects of global warming and ocean acidification on carbonate budgets of eastern Pacific coral reefs. In *Coral Reefs of the Eastern Tropical Pacific: Persistence and Loss in a Dynamic Environment*, P.W. Glynn, D.P. Manzello, and I. Enochs (eds.). Springer Netherlands (doi:10.1007/978-94-017-7499-4_18), 517-533 (2016).

MANZELLO, D.P., I.C. ENOCHS, G. KOLODZIEJ, and R. CARLTON. Coral growth patterns of *Montastraea cavernosa* and *Porites astreoides* in the Florida Keys: The importance of thermal stress and inimical waters. *Journal of Experimental Marine Biology and Ecology*, 471:198-207 (doi:10.1016/j.jembe.2015.06.010) (2015).

Martinez-Urtaza, J., J. TRINANES, N. Gonzalez-Escalona, and C. Baker-Austin. Is El Niño a long distance corridor for waterborne disease? *Nature Microbiology*, 1(3):16018 (doi:10.1038/nmicrobiol.2016.18) (2016).

Martinez-Urtaza, J., A. Powell, J. Jansa, J.L. Castro Rey, O. Paz Montero, M. Garcia Campello, M.J. Zamora Lopez, A. Pouso, M.J. Faraldo Valles, J. TRINANES, D. Hervio-Heath, W. Keay, A. Bayley, R. Hartnell, and C. Baker-Austin. Epidemiological investigation of a foodborne outbreak in Spain associated with U.S. west coast genotypes of *Vibrio parahaemolyticus*. *SpringerPlus*, 5:87 (doi:10.1186/s40064-016-1728-1), 8 pp. (2016).

Maynard, J.A., S. McKagan, L. Raymundo, S. Johnson, G.N. Ahmadi, L. Johnston, P. Houk, G.J. Williams, M. Kendall, S.F. Heron, R. VAN HOOIDONK, E. Mcleod, D. Tracey, and S. Planes. Assessing relative resilience potential of coral reefs to inform management. *Biological Conservation*, 192:109-119 (doi:10.1016/j.biocon.2015.09.001) (2015).

Maynard, J.A., R. Beeden, M. Puotinen, J.E. Johnson, P. Marshall, R. VAN HOOIDONK, S.F. Heron, M. Devlin, E. Lawrey, J. Dryden, N. Ban, D. Wachenfeld, and S. Planes. Great Barrier Reef no-take areas include a range of disturbance regimes. *Conservation Letters*, 9(3):191-199 (doi:10.1111/conl.12198) (2016).

Maynard, J., R. VAN HOOIDONK, C.D. Harvell, C.M. Eakin, G. Liu, B.L. Willis, G.J. Williams, M. Groner, A. Dobson, S.F. Heron, R. Glenn, K. Reardon, and J.D. Shields. Improving marine disease surveillance through sea temperature monitoring, outlooks, and projections. *Philosophical Transactions of the Royal Society B*, 371(1689):20150208 (doi:10.1098/rstb.2015.0208) (2016).

McDonagh, E.L., B.A. King, H.L. Bryden, P. Courtois, Z. Szuts, M. BARINGER, S.A. Cunningham, C. Atkinson, and G. McCarthy. Continuous estimate of Atlantic oceanic freshwater flux at 26°N. *Journal of Climate*, 28(22):8888-8906 (doi:10.1175/JCLI-D-14-00519.1) (2015).

MEINEN, C.S., and D.S. Luther. Structure, transport, and vertical coherence of the Gulf Stream from the Straits of Florida to the southeast Newfoundland Ridge. *Deep-Sea Research, Part I*, 112:137-154 (doi:10.1016/j.dsr.2016.02.002) (2016).

Ming, J., and J.A. ZHANG. Effects of surface flux parameterization on numerically simulated intensity and structure of Typhoon Morakot (2009). *Advances in Atmospheric Sciences*, 33(1):58-72 (doi:10.1007/s00376-015-4202-z) (2016).

Mohanty, U.C., K.K. Osuri, V. Tallapragada, F.D. MARKS, S. Pattanayak, M. Mohapatra, L.S. Rathore, S.G. GOPALAKRISHNAN, and D. Niyogi. A great escape from the Bay of Bengal “Super Sapphire-Phailin” tropical cyclone: A case of improved weather forecast and societal response for disaster mitigation. *Earth Interactions*, 19(17):1-11 (doi:10.1175/EI-D-14-0032.1) (2015).

Moon, I.-J., S.-H. Kim, and C. WANG. Reply: El Niño and intense tropical cyclones. *Nature*, 526(7575):E4-E5 (doi:10.1038/nature13958) (2015).

Nagamani, P.V., M.M. Ali, G.J. GONI, T.V.S. Udaya Bhaskar, J.P. McCreary, R.A. Weller, M. Rajeevan, V.V. Gopala Krishna, and J.C. Pezzullo. Heat content of the Arabian Sea mini warm pool is increasing. *Atmospheric Science Letters*, 17(1):39-42 (doi:10.1002/asl.596) (2016).

Patsavas, M.C., R.H. Byrne, R. WANNINKHOF, R.A. Feely, and W.-J. Cai. Internal consistency of marine carbonate system measurements and assessments of aragonite saturation state: Insights from two U.S. coastal cruises. *Marine Chemistry*, 176:9-20 (doi:10.1016/j.marchem.2015.06.022) (2015).

Reagan, J., T. Boyer, C. SCHMID, and R. Locarnini. Subsurface salinity. In *State of the Climate in 2015*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 97(8):S72-S74 (doi:10.1175/2016BAMSStateoftheClimate.1) (2016).

Riser, S.C., H.J. Freeland, D. Roemmich, S. Wijffels, A. Troisi, M. Belbeoch, D. Gilbert, J. Xu, S. Pouliquen, A. Thresher, P.-Y. Le Traon, G. Maze, B. Klein, M. Ravichandran, F. Grant, P.-M. Poulain, T. Suga, B. Lim, A. Sterl, P. Sutton, K.-A. Mork, P.J. Vélez-Belchí, I. Ansorge, B. King, J. Turton, M. BARINGER, and S.R. Jayne. Fifteen years of observations with the global Argo array. *Nature Climate Change*, 6(2):145-153 (doi:10.1038/nclimate2872) (2016).

Rödenbeck, C., D.C.E. Bakker, N. Gruber, Y. Iida, A.R. Jacobson, S. Jones, P. Landschützer, N. Metzl, S. Nakaoka, A. Olsen, G.-H. Park, P. Peylin, K.B. Rodgers, T.P. Sasse, U. Schuster, J.D. Shutler, V. Valsala, R. WANNINKHOF, and J. Zeng. Data-based estimates of the ocean carbon sink variability—First results of the surface ocean pCO₂ mapping intercomparison (SOCOM). *Biogeosciences*, 12(23):7251-7278 (doi:10.5194/bg-12-7251-2015) (2015).

ROGERS, R.F., J.A. ZHANG, J. Zawislak, H. Jiang, G.R. Alvey, E.J. Zipser, and S.N. Stevenson. Observations of the structure and evolution of Hurricane Edouard (2014) during intensity change, Part II: Kinematic structure and the distribution of deep convection. *Monthly Weather Review*, 144(9):3355-3376 (doi:10.1175/MWR-D-16-0017.1) (2016).

Ruf, C.S., R. ATLAS, P.S. Chang, M.P. Clarizia, J.L. Garrison, S. Gleason, S.J. Katzberg, Z. Jelenak, J.T. Johnson, S.J. Majumdar, A. O'Brien, D.J. Posselt, A.J. Ridley, R.J. Rose, and V.U. Zavorotny. New ocean winds satellite mission to probe hurricanes and tropical convection. *Bulletin of the American Meteorological Society*, 97(3):385-395 (doi:10.1175/BAMS-D-14-00218.1) (2016).

SERRANO, X.M., I.B. Baums, T.B. Smith, R.J. Jones, T.L. Shearer, and A.C. Baker. Long-distance dispersal and vertical gene flow in the Caribbean brooding coral *Porites astreoides*. *Nature Scientific Reports*, 6:21619 (doi:10.1038/srep21619) (2016).

SONG, Z., S.-K. LEE, C. WANG, B.P. Kirtman, and F. Qiao. Contributions of the atmosphere-land and ocean-sea ice model components to the tropical Atlantic SST bias in CESM1. *Ocean Modelling*, 96(2):280-290 (doi:10.1016/j.ocemod.2015.09.008) (2015).

Stern, D.P., G.H. Bryan, and S.D. ABERSON. Extreme low-level updrafts and wind speeds measured by dropsondes in tropical cyclones. *Monthly Weather Review*, 144(6):2177-2204 (doi:10.1175/MWR-D-15-0313.1) (2016).

Stulberg, E., D. Fravel, L.M. Proctor, D.M. Murray, J. LoTempio, L. Chrisey, J. Garland, K. GOODWIN, J. Graber, M.C. Harris, S. Jackson, M. Mishkind, D.M. Porterfield, and A. Records. An assessment of US microbiome research. *Nature Microbiology*, 1(1):15015 (doi:10.1038/nmicrobiol.2015.15) (2016).

- Talley, L.D., R.A. Feely, B.M. Sloyan, R. WANNINKHOF, M.O. BARINGER, J.L. Bullister, C.A. Carlson, S.C. Doney, R.A. Fine, E. Firing, N. Gruber, D.A. Hansell, M. Ishii, G.C. Johnson, K. Katsumata, R.M. Key, M. Kramp, C. Langdon, A.M. Macdonald, J.T. Mathis, E.L. McDonagh, S. Mecking, F.J. Millero, C.W. Mordy, T. Nakano, C.L. Sabine, W.M. Smethie, J.H. Swift, T. Tanhua, A.M. Thurnherr, M.J. Warner, and J.-Z. ZHANG. Changes in ocean heat, carbon content, and ventilation: A review of the first decade of GO-SHIP global repeat hydrography. *Annual Review of Marine Science*, 8:185-215 (doi:10.1146/annurev-marine-052915-100829) (2016).
- Tan, W., X. Wang, W. Wang, C. WANG, and J. Zuo. Different responses of sea surface temperature in the South China Sea to various El Niño events during boreal autumn. *Journal of Climate*, 29(3):1127-1142 (doi:10.1175/JCLI-D-15-0338.1) (2016).
- Tang, J., D. Byrne, J.A. ZHANG, Y. Wang, X. Lei, D. Wu, P. Fang, and B. Zhao. Horizontal transition of turbulent cascade in the near-surface layer of tropical cyclones. *Journal of the Atmospheric Sciences*, 72(12):4915-4925 (doi:10.1175/JAS-D-14-0373.1) (2015).
- Towle, E.K., R. CARLTON, C. Langdon, and D.P. MANZELLO. In-situ measurement of metabolic status in three coral species from the Florida Reef Tract. *Regional Studies in Marine Science*, 2:145-153 (doi:10.1016/j.rsma.2015.09.007) (2015).
- van Sebille, E., S. Waterman, A. Barthel, R. LUMPKIN, S.R. Keating, C. Fogwill, and C. Turney. Pairwise surface drifter separation in the western Pacific sector of the Southern Ocean. *Journal of Geophysical Research-Oceans*, 120(10):6769-6781 (doi:10.1002/2015JC010972) (2015).
- VOLKOV, D.L., and F.W. Landerer. Internal and external forcing of sea level variability in the Black Sea. *Climate Dynamics*, 45(9-10):2633-2646 (doi:10.1007/s00382-015-2498-0) (2015).
- VOLKOV, D.L., A.A. Kubryakov, and R. LUMPKIN. Formation and variability of the Lofoten Basin vortex in a high-resolution ocean model. *Deep-Sea Research, Part I*, 105:142-157 (doi:10.1016/j.dsr.2015.09.001) (2015).
- VOLKOV, D.L., W.E. Johns, and T.V. Belonenko. Dynamic response of the Black Sea elevation to intraseasonal fluctuations of the Mediterranean sea level. *Geophysical Research Letters*, 43(1):283-290 (doi:10.1002/2015GL066876) (2016).
- WANG, C. Atlantic warm pool. In *State of the Climate in 2015*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 97(8):S123-S124 (doi:10.1175/2016BAMSStateoftheClimate.1) (2016).
- WANG, C., C. Deser, J.-Y. Yu, P. DiNezio, and A. Clement. El Niño and Southern Oscillation (ENSO): A review. In *Coral Reefs of the Eastern Tropical Pacific: Persistence and Loss in a Dynamic Environment*, P.W. Glynn, D.P. Manzello, and I.C. Enochs (eds.). Springer Netherlands (doi:10.1007/978-94-017-7499-4_4), 85-106 (2016).
- Wang, X., and H. LIU. PDO modulation of ENSO effect on tropical cyclone rapid intensification in the western North Pacific. *Climate Dynamics*, 46(1-2):15-28 (doi:10.1007/s00382-015-2563-8) (2016).
- Williams, N.L., L.W. Juranek, K.S. Johnson, R.A. Feely, S.C. Riser, L.D. Talley, J.L. Russell, J.L. Sarmiento, and R. WANNINKHOF. Empirical algorithms to estimate water column pH in the Southern Ocean. *Geophysical Research Letters*, 43(7):3415-3422 (doi:10.1002/2016GL068539) (2016).
- Woosley, R.J., F.J. Millero, and R. WANNINKHOF. Rapid anthropogenic changes in CO₂ and pH in the Atlantic Ocean: 2003-2014. *Global Biogeochemical Cycles*, 30(1):70-90 (doi:10.1002/2015GB005248) (2016).

Yasunaka, S., A. Murata, E. Watanabe, M. Chierici, A. Fransson, S. van Heuven, M. Hoppema, M. Ishii, T. Johannessen, N. Kosugi, S.K. Lauvset, J.T. Mathis, S. Nishino, A.M. Omar, A. Olsen, D. Sasano, T. Takahashi, and R. WANNINKHOF. Mapping of the air-sea CO₂ flux in the Arctic Ocean and its adjacent seas: Basin-wide distribution and seasonal to interannual variability. *Polar Science*, 10(3):323-334 (doi:10.1016/j.polar.2016.03.006) (2016).

Zawislak, J.G., H. Jiang, G.R. Alvey, E.J. Zipser, R.F. ROGERS, J.A. ZHANG, and S.N. Stevenson. Observations of the structure and evolution of Hurricane Edouard (2014) during intensity change, Part 1: Relationship between the thermodynamic structure and precipitation. *Monthly Weather Review*, 144(9):3333-3354 (doi:10.1175/MWR-D-16-0018-1) (2016).

ZHANG, J.A., and F.D. MARKS. Effects of horizontal diffusion on tropical cyclone intensity change and structure in idealized three-dimensional numerical simulations. *Monthly Weather Review*, 143(10):3981-3995 (doi:10.1175/MWR-D-14-00341.1) (2015).

Zhang, R., J. Huang, X. Wang, J.A. ZHANG, and F. Huang. Effects of precipitation on sonic anemometer measurements of turbulent fluxes in the atmospheric surface layer. *Journal of Ocean University of China*, 15(3):389-398 (doi:10.1007/s11802-016-2804-4) (2016).

Zhao, H., and C. WANG. Interdecadal modulation on the relationship between ENSO and typhoon activity during the late season in the western North Pacific. *Climate Dynamics*, 47(1-2):315-328 (doi:10.1007/s00382-015-2837-1) (2016).

Zhu, P., Z. Zhu, S. GOPALAKRISHNAN, R. BLACK, F.D. MARKS, V. Tallapragada, J.A. ZHANG, X. ZHANG, and C. Gao. Impact of sub-grid scale processes on eyewall replacement cycle of tropical cyclones in HWRF system. *Geophysical Research Letters*, 42(22):10027-10036 (doi:10.1002/2015GL066436) (2015).

FY-2017

ABERSON, S.D., J.A. ZHANG, and K. Nunez-Ocasio. An extreme event in the eyewall of Hurricane Felix on 2 September 2007. *Monthly Weather Review*, 145(6):2083-2092 (doi:10.1175/MWR-D-16-0364.1) (2017).

ABERSON, S.D., K.J. SELLWOOD, and P.A. LEIGHTON. Calculating dropwindsonde location and time from TEMP-DROP messages for accurate assimilation and analysis. *Journal of Atmospheric and Oceanic Technology*, 34(8):1673-1678 (doi:10.1175/JTECH-D-17-0023.1) (2017).

Akhand, A., A. Chanda, S. Manna, S. Das, S. Hazra, R. Roy, S.B. Choudhury, K.H. Rao, V.K. Dadhwal, K. Chakraborty, K.M.G. Mostofa, T. Tokoro, T. Kuwae, and R. WANNINKHOE. A comparison of CO₂ dynamics and air-water fluxes in a river-dominated estuary and a mangrove-dominated marine estuary. *Geophysical Research Letters*, 43(22):11,726-11,735 (doi:10.1002/2016GL070716) (2016).

ALAKA, G.J., and E.D. Maloney. Internal intraseasonal variability of the West African Monsoon in WRF. *Journal of Climate*, 30(15):5805-5813 (doi:10.1175/JCLI-D-16-0750.1) (2017).

ALAKA, G.J., X. ZHANG, S.G. GOPALAKRISHNAN, S.B. GOLDENBERG, and F.D. MARKS. Performance of basin-scale HWRF tropical cyclone track forecasts. *Weather and Forecasting*, 32(3):1253-1271 (doi:10.1175/WAF-D-16-0150.1) (2017).

Androulidakis, Y., V. Kourafalou, G. HALLIWELL, M. LE HENAFF, H.S. Kang, M. MEHARI, and R. ATLAS. Hurricane interaction with the upper ocean in the Amazon-Orinoco plume region. *Ocean Dynamics*, 66(12):1559-1588 (doi:10.1007/s10236-016-0997-0) (2016).

Araujo, M.L.V., C.R.B. Mendes, V.M. Tavano, C.A.E. Garcia, and M.O. BARINGER. Contrasting patterns of phytoplankton pigments and chemotaxonomic groups along 30°S in the subtropical South Atlantic Ocean. *Deep Sea Research, Part I*, 120:112-121 (doi:10.1016/j.dsr.2016.12.004) (2017).

Baker-Austin, C., J. TRINANES, N. Gonzalez-Escalona, and J. Martinez-Urtaza. Non-cholera vibrios: The microbial barometer of climate change. *Trends in Microbiology*, 25(1):76-84 (doi:10.1016/j.tim.2016.09.008) (2017).

Balaguru, K., G.R. FOLTZ, L.R. Leung, and K.A. Emanuel. Global warming-induced upper-ocean freshening and intensification of super typhoons. *Nature Communications*, 7:13670 (doi:10.1038/ncomms13670) (2016).

BARINGER, M.O., D.A. Smeed, J. Willis, M. Lankhorst, W.R. Hobbs, S. DONG, G. McCarthy, D. Rayner, W.E. Johns, G. GONI, and U. Send. Meridional overturning and oceanic heat transport circulation observations in the North Atlantic Ocean. In *State of the Climate in 2016*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 98(8):S84-S87 (doi:10.1175/2017BAMS StateoftheClimate.1) (2017).

Bell, G.D., E.S. Blake, C.W. Landsea, C. Wang, J. Schemm, T. Kimberlain, R.J. Pasch, and S.B. GOLDENBERG. Tropical cyclones: Atlantic basin. In *State of the Climate in 2016*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 98(8):S108-S112 (doi:10.1175/2017BAMSSStateoftheClimate.1) (2017).

Beron-Vera, F.J., M.J. Olascoaga, and R. LUMPKIN. Inertia-induced accumulation of flotsam in the subtropical gyres. *Geophysical Research Letters*, 43(23):12,229-12,233 (doi:10.1002/2016GL071443) (2016).

Boukabara, S.A., T. Zhu, H.L. Tolman, S. Lord, S. Goodman, R. ATLAS, M. Goldberg, T. Auligne, B. Pierce, L. Cucurull, M. Zupanski, M. Zhang, I. Moradi, J. Otkin, D. Santek, B. Hoover, Z. Pu, X. Zhan, C. Hain, E. Kalnay, D. Hotta, S. Nolin, E. Bayler, A. Mehra, S.P.F. Casey, D. Lindsey, L. Grasso, V.K. Kumar, A. Powell, J. Xu, T. Greenwald, J. Zajic, J. Li, J. Li, B. Li, J. Liu, L. Fang, P. Wang, and T.-C. Chen. S4: An O2R/R2O infrastructure for optimizing satellite data utilization in NOAA numerical modeling systems: A step toward bridging the gap between research and operations. *Bulletin of the American Meteorological Society*, 97(12):2359-2378 (doi:10.1175/BAMS-D-14-00188.1) (2016).

- Bryan, G.H., R.P. Worsnop, J.K. Lundquist, and J.A. ZHANG. A simple method for simulating wind profiles in the boundary layer of tropical cyclones. *Boundary-Layer Meteorology*, 162(3):475-502 (doi:10.1007/s10546-016-0207-0) (2017).
- Cai, W.-J., W.-J. Huang, G.W. Luther, D. PIERROT, M. Li, J. Testa, M. Xue, A. Joesoef, R. Mann, J. Brodeur, Y.-Y. Xu, B. Chen, N. Hussain, G.G. Waldbusser, J. Cornwell, and W.M. Kemp. Redox reactions and weak buffering capacity lead to acidification in the Chesapeake Bay. *Nature Communications*, 8(1):369 (doi:10.1038/s41467-017-00417-7) (2017).
- Caillouet, C.W., N.F. PUTMAN, D.J. Shaver, R.A. Valverde, E.E. Seney, K.J. Lohmann, K.L. Mansfield, B.J. Gallaway, J.P. Flanagan, and M.H. Godfrey. A call for evaluation of the contribution made by rescue, resuscitation, rehabilitation, and release translocations to Kemp's ridley sea turtle (*Lepidochelys kempii*) population recovery. *Herpetological Conservation and Biology*, 11(3):486-496 (2016).
- Cao, Y., M.R. Raith, P.D. Smith, J.F. Griffith, S.B. Weisberg, A. Schriewer, A. Sheldon, C. Crompton, G.G. Amenu, J. Gregory, J. Guzman, K.D. GOODWIN, L. Othman, M. Manasjan, S. Choi, S. Rapoport, S. Steele, T. Nguyen, and X. Yu. Regional assessment of human fecal contamination in southern California coastal drainages. *International Journal of Environmental Research and Public Health*, 14(8):874 (doi:10.3390/ijerph14080874) (2017).
- Carillo, L., J.T. Lamkin, E.M. JOHNS, L. Vasquez-Yeomans, F. Sosa-Cordero, E. Malca, R.H. SMITH, and T. Gerard. Linking oceanographic processes and marine resources in the western Caribbean Sea large marine ecosystem area. *Environmental Development*, 22:84-96 (doi:10.1016/j.envdev.2017.01.004) (2017).
- Centurioni, L., A. Horanyi, C. Cardinali, E. Charpentier, and R. LUMPKIN. A global ocean observing system for measuring sea level atmospheric pressure: Effects and impacts on numerical weather prediction. *Bulletin of the American Meteorological Society*, 98(2):231-238 (doi:10.1175/BAMS-D-15-00080.1) (2017).
- CHRISTOPHERSEN, H., A. AKSOY, J. DUNION, and K. SELLWOOD. The impact of NASA Global Hawk unmanned aircraft dropwindsonde observations on tropical cyclone track, intensity, and structure: Case studies. *Monthly Weather Review*, 145(5):1817-1830 (doi:10.1175/MWR-D-16-0332.1) (2017).
- Cormier, R., C.R. KELBLE, M.R. Anderson, J.I. Allen, A. Grehan, and O. Gregersen. Moving from ecosystem-based policy objectives to operational implementation of ecosystem-based management measures. *ICES Journal of Marine Science*, 74(1):406-413 (doi:10.1093/icesjms/fsw181) (2017).
- Cresci, A., R. De Rosa, N.F. PUTMAN, and C. Agnisola. Earth-strength magnetic field affects the rheotactic threshold of zebrafish swimming in shoals. *Comparative Biochemistry and Physiology, Part A: Molecular and Integrative Physiology*, 204:169-176 (doi:10.1016/j.cbpa.2016.11.019) (2017).
- CUCURULL, L., R. Li, and T.R. Peevey. Assessment of radio occultation observations from the COSMIC-2 mission with a simplified Observing System Simulation Experiment configuration. *Monthly Weather Review*, 145(9):3581-3597 (doi:10.1175/MWR-D-16-0475.1) (2017).
- de Souza, J.N., F.L.D. Nunes, C. Zilberman, J.A. Sanchez, A.E. Migotto, B.W. Hoeksema, X.M. SERRANO, A.C. Baker, and A. Lindner. Contrasting patterns of connectivity among endemic and widespread fire coral species (*Millepora* spp.) in the tropical southwestern Atlantic. *Coral Reefs*, 36(3):701-716 (doi:10.1007/s00338-017-1562-0) (2017).
- Didlake, A.C., G.M. Heymsfield, P.D. REASOR, and S.R. Guimond. Concentric eyewall asymmetries in Hurricane Gonzalo (2014) observed by airborne radar. *Monthly Weather Review*, 145(3):729-749 (doi:10.1175/MWR-D-16-0175.1) (2017).

- DOMINGUES, R., M. BARINGER, and G. GONI. Remote sources for year-to-year changes in the seasonality of the Florida Current. *Journal of Geophysical Research-Oceans*, 121(10):7547-7559 (doi:10.1002/2016JC012070) (2016).
- DONG, J., R. DOMINGUES, G. GONI, G. HALLIWELL, H.-S. Kim, S.-K. LEE, M. MEHARI, F. BRINGAS, J. Morell, and L. Pomales. Impact of assimilating underwater glider data on Hurricane Gonzalo (2014) forecasts. *Weather and Forecasting*, 32(3):1143-1159 (doi:10.1175/WAF-D-16-0182.1) (2017).
- DONG, S., D. VOLKOV, G. GONI, R. LUMPKIN, and G.R. FOLTZ. Near-surface salinity and temperature structure observed with dual-sensor drifters in the subtropical South Pacific. *Journal of Geophysical Research-Oceans*, 122(7):5952-5969 (doi:10.1002/2017JC012894) (2017).
- Dong, Y., Q.P. Li, Z. Wu, and J.-Z. ZHANG. Variability in sinking fluxes and composition of particle-bound phosphorus in the Xisha area of the northern South China Sea. *Deep Sea Research-Part I*, 118:1-9 (doi:10.1016/j.dsr.2016.10.007) (2016).
- Drury, C., D. MANZELLO, and D. Lirman. Genotype and local environment dynamically influence growth, disturbance response, and survivorship in the threatened coral, *Acropora cervicornis*. *PLoS ONE*, 12(3):e0174000 (doi:10.1371/journal.pone.0174000) (2017).
- ENOCHS, I.C., D.P. MANZELLO, G. KOLODZIEJ, S.H.C. Noonan, L. VALENTINO, and K.E. Fabricius. Enhanced macroboring and depressed calcification drive net dissolution at high CO₂ coral reefs. *Proceedings of the Royal Society B*, 283(1842):20161742 (doi:10.1098/rspb.2016.1742) (2016).
- Feely, R.A., R. WANNINKHOF, P. Landschützer, B. Carter, and J.A. TRINANES. Global ocean carbon cycle. In *State of the Climate in 2016*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 98(8):S89-S92 (doi:10.1175/2017BAMSStateoftheClimate.1) (2017).
- Flower, H., M. Rains, D. Lewis, and J.-Z. ZHANG. Rapid and intense phosphate desorption kinetics when saltwater intrudes into carbonate rock. *Estuaries and Coasts*, 40(5):1301-1313 (doi:10.1007/s12237-017-0228-z) (2017).
- Flower, H., M. Rains, D. Lewis, J.-Z. ZHANG, and R. Price. Saltwater intrusion as potential driver of phosphorus release from limestone bedrock in a coastal aquifer. *Estuarine, Coastal and Shelf Science*, 184:166-176 (doi:10.1016/j.ecss.2016.11.013) (2017).
- Folmer, M.J., R.W. Pasken, S. Chiao, J. DUNION, and J. Halverson. Modeling studies on the formation of Hurricane Helene: The impact of GPS dropwindsondes from the NAMMA 2006 field campaign. *Meteorology and Atmospheric Physics*, 128(6):733-750 (doi:10.1007/s00703-016-0452-2) (2016).
- FOLTZ, G.R., and K. Balaguru. Prolonged El Niño conditions in 2014-2015 and the rapid intensification of Hurricane Patricia in the eastern Pacific. *Geophysical Research Letters*, 43(19):10,347-10,355 (doi:10.1002/2016GL070274) (2016).
- GOES, M., E. Babcock, F. BRINGAS, P. Ortner, and G. GONI. The impact of improved thermistor calibration on the expendable bathythermograph profile data. *Journal of Atmospheric and Oceanic Technology*, 34(9):1947-1961 (doi:10.1175/JTECH-D-17-0024.1) (2017).
- GONI, G.J., J.A. Knaff, and I.-I. Lin. Tropical cyclone heat potential. In *State of the Climate in 2016*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 98(8):S123-S126 (doi:10.1175/2017BAMSStateoftheClimate.1) (2017).

- GONI, G.J., R.E. Todd, S.R. Jayne, G.R. HALLIWELL, S. Glenn, J. Dong, R. Curry, R. DOMINGUES, F. BRINGAS, L. Centurioni, S.F. DiMarco, T. Miles, J. Morell, L. Pomales, H.-S. Kim, P.E. Robbins, G.G. Gawarkiewicz, J. Wilkin, J. Heiderich, B. Baltes, J.J. CIONE, G. Seroka, K. Knee, and E.R. Sanabia. Autonomous and Lagrangian ocean observations for Atlantic tropical cyclone studies and forecasts. *Oceanography*, 30(2):85-95 (doi:10.5670/oceanog.2017.227) (2017).
- GOODWIN, K.D., A. Schriewer, A. Jirik, K. Curtis, and A. Crumpacker. Consideration of natural sources in a bacteria TMDL—Lines of evidence, including beach microbial source tracking. *Environmental Science and Technology*, 51(14):7775-7784 (doi:10.1021/acs.est.6b05886) (2017).
- GOODWIN, K.D., L.R. THOMPSON, B. Duarte, T. Kahlke, A.R. Thompson, J.C. Marques, and I. Cacador. DNA sequencing as a tool to monitor marine ecological status. *Frontiers in Marine Science*, 4:107 (doi:10.3389/fmars.2017.00107) (2017).
- GOPALAKRISHNAN, S., C.V. Srinivas, and K.T. Bhatia. The hurricane boundary layer. In *Advanced Numerical Modeling and Data Assimilation Techniques for Tropical Cyclone Predictions*, U.C. Mohanty and S.G. Gopalakrishnan (eds.). Springer Netherlands (doi:10.1007/978-94-024-0896-6), 589-626 (2016).
- HALLIWELL, G.R., M. MEHARI, L.K. Shay, V.H. Kourafalou, H. Kang, H.-S. Kim, J. Dong, and R. ATLAS. OSSE quantitative assessment of rapid-response prestorm ocean surveys to improve coupled tropical cyclone prediction. *Journal of Geophysical Research-Oceans*, 122(7):5729-5748 (doi:10.1002/2017JC012760) (2017).
- HALLIWELL, G.R., M.F. MEHARI, M. LE HÉNAFF, V.H. Kourafalou, I.S. Androulidakis, H.-S. Kang, and R. ATLAS. North Atlantic Ocean OSSE system: Evaluation of operational ocean observing system components and supplemental seasonal observations for potentially improving tropical cyclone prediction in coupled systems. *Journal of Operational Oceanography*, 10(2):154-175 (doi:10.1080/1755876X.2017.1322770) (2017).
- Harvey, C.J., C.R. KELBLE, and F.B. Schwing. Implementing “the IEA”: Using integrated ecosystem assessment frameworks, programs, and applications in support of operationalizing ecosystem-based management. *ICES Journal of Marine Science*, 74(1):398-405 (doi:10.1093/icesjms/fws201) (2017).
- Hazelton, A.T., R.F. ROGERS, and R.E. Hart. Analyzing simulated convective bursts in two Atlantic hurricanes. Part I: Burst formation and development. *Monthly Weather Review*, 145(8):3073-3094 (doi:10.1175/MWR-D-16-0267.1) (2017).
- Hazelton, A.T., R.E. Hart, and R.F. ROGERS. Analyzing simulated convective bursts in two Atlantic hurricanes. Part II: Intensity change due to bursts. *Monthly Weather Review*, 145(8):3095-3117 (doi:10.1175/MWR-D-16-0268.1) (2017).
- HENDEE, J.C., J. Halas, P.J. FLETCHER, M. JANKULAK, and L.J. GRAMER. Expansion of the Coral Reef Early Warning System (CREWS) network throughout the Caribbean. *Proceedings, 13th International Coral Reef Symposium*, June 19-24, 2016, Honolulu, HI. International Society for Reef Studies, 517-522 (2016).
- Heron, S.F., J.A. Maynard, R. VAN HOOIDONK, and C.M. Eakin. Warming trends and bleaching stress of the world’s coral reefs, 1985-2012. *Nature Scientific Reports*, 6:38402 (doi:10.1038/srep38402) (2016).
- Ho, D.T., S. Ferron, V.C. Engel, W.T. Anderson, P.K. Swart, R.M. Price, and L. BARBERO. Dissolved carbon biogeochemistry and export in mangrove-dominated rivers of the Florida Everglades. *Biogeosciences*, 14(9):2543-2559 (doi:10.5194/bg-14-2543-2017) (2017).
- HOFFMAN, R.N., S.-A. Boukabara, V.K. Kumar, K. Garrett, S.P.F. CASEY, and R. ATLAS. An empirical cumulative density function approach to defining summary NWP forecast assessment metrics. *Monthly Weather Review*, 145(4):1427-1435 (doi:10.1175/MWR-D-16-0271.1) (2017).

Holsman, K., J. Samhour, G. Cook, E. Hazen, E. Olsen, M. Dillard, S. Kasperski, S. Gaichas, C.R. KELBLE, M. Fogarty, and K. Andrews. An ecosystem-based approach to marine risk assessment. *Ecosystem Health and Sustainability*, 3(1):e01256 (doi:10.1002/ehs2.1256) (2017).

Jin S., S. Wang, X. Li, L. Jiao, and J.A. ZHANG. Tropical cyclone center location in SAR images based on feature learning and visual saliency. In *Hurricane Monitoring with Spaceborne Synthetic Aperture Radar*, X. Li (ed.). Springer Singapore (doi:10.1007/978-981-10-2893-9_8), 141-181 (2017).

Jin, S., S. Wang, X. Li, L. Jiao, J.A. ZHANG, and D. Shen. A salient region detection and pattern matching-based algorithm for center detection of a partially covered tropical cyclone in a SAR image. *IEEE Transactions on Geoscience and Remote Sensing*, 55(1):280-291 (doi:10.1109/TGRS.2016.2605766) (2017).

Johnson, G.C., J. Reagan, J.M. Lyman, T. Boyer, C. SCHMID, and R. Locarnini. Global oceans: Salinity. In *State of the Climate in 2016*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 98(8):S69-S71 (doi:10.1175/2017BAMSSStateoftheClimate.1) (2017).

KALINA, E.A., S.Y. Matrosov, J.J. CIONE, F.D. MARKS, J. Vivekenandan, R.A. BLACK, J.C. Hubbert, M.M. Bell, D.E. Kingsmill, and A.B. White. The ice water paths of small and large ice species in Hurricane Arthur (2014) and Irene (2011). *Journal of Applied Meteorology and Climatology*, 56(5):1383-1404 (doi:10.1175/JAMC-D-16-0300-1) (2017).

KLOTZ, B.W., and H. Jiang. Global composites of surface wind speeds in tropical cyclones based on a 12-year scatterometer database. *Geophysical Research Letters*, 43(19):10,480-10,488 (doi:10.1002/2016GL071066) (2016).

Kourafalou, V.H., Y.S. Androulidakis, G.R. HALLIWELL, H.-S. Kang, M. MEHARI, M. LE HENAFF, R. ATLAS, and R. LUMPKIN. North Atlantic Ocean OSSE system development: Nature Run evaluation and application to hurricane interaction with the Gulf Stream. *Progress in Oceanography*, 148:1-25 (doi:10.1016/j.pocean.2016.09.001) (2016).

Kubryakov, A.A, S.V. Stanichny, and D.L. VOLKOV. Quantifying the impact of the basin dynamics on the regional sea level rise in the Black Sea. *Ocean Science*, 13(3):443-452 (doi:10.5194/os-13-443-2017) (2017).

Kuffner, I.B., E. Bartels, A. Stathakopoulos, I.C. ENOCHS, G. KOLODZIEJ, L.T. Toth, and D.P. MANZELLO. Plasticity in skeletal characteristics of nursery-raised staghorn coral, *Acropora cervicornis*. *Coral Reefs*, 36(3):679-684 (doi:10.1007/s00338-017-1560-2) (2017).

Laurent, A., K. Fennel, W.-J. Cai, W.-J. Huang, L. BARBERO, and R. WANNINKHOF. Eutrophication-induced acidification of coastal waters in the northern Gulf of Mexico: Insights into origin and processes from a coupled physical-biogeochemical model. *Geophysical Research Letters*, 44(2):946-956 (doi:10.1002/2016GL071881) (2017).

Laurindo, L.C., A.J. Mariano, and R. LUMPKIN. An improved surface velocity climatology for the global ocean from drifter observations. *Deep-Sea Research, Part I*, 124:73-92 (doi:10.1016/j.dsr.2017.04.009) (2017).

Le Quéré, C., R.M. Andrew, J.G. Canadell, S. Sitch, J.I. Korsbakken, G.P. Peters, A.C. Manning, T.A. Boden, P.P. Tans, R.A. Houghton, R.F. Keeling, S. Alin, O.D. Andrews, P. Anthoni, L. BARBERO, L. Bopp, F. Chevallier, L.P. Chini, P. Ciais, K. Currie, C. Delire, S.C. Doney, P. Friedlingstein, T. Gkritzalis, I. Harris, J. Hauck, V. Haverd, M. Hoppe, K. Klein Goldewijk, A.K. Jain, E. Kato, A. Körtzinger, P. Landschützer, N. Lefèvre, A. Lenton, S. Lienert, D. Lombardozzi, J.R. Melton, N. Metzl, F. Millero, P.M.S. Monteiro, D.R. Munro, J.E.M.S. Nabel, S.I. Nakaoka, K. O'Brien, A. Olsen, A.M. Omar, T. Ono, D. PIERROT, B. Poulter, C. Rödenbeck, J. Salisbury, U. Schuster, J. Schwinger, R. Séférian, I. Skjelvan, B.D. Stocker, A.J. Sutton, T. Takahashi, H. Tian, B. Tilbrook, I.T. van der Laan-Luijkx, G.R. van der Werf, N. Viovy, A.P. Walker, A.J. Wiltshire, and S. Zaehle. Global carbon budget 2016. *Earth System Science Data*, 8(2):605-649 (doi:10.5194/essd-8-605-2016) (2016).

LEE, S.-K., D.L. VOLKOV, H. LOPEZ, W.G. Cheon, A.L. Gordon, Y. LIU, and R. WANNINKHOF. Wind-driven ocean dynamics impact on the contrasting sea-ice trends around West Antarctica. *Journal of Geophysical Research-Oceans*, 122(5):4413-4430 (doi:10.1002/2016JC012416) (2017).

Leidner, S.M., T. Nehrkorn, J. Henderson, M. Mountain, T. Yunck, and R.N. HOFFMAN. A severe weather quick observing system simulation experiment (QuickOSSE) of global navigation satellite system (GNSS) radio occultation (RO) superconstellations. *Monthly Weather Review*, 145(2):637-651 (doi:10.1175/MWR-D-16-0212.1) (2017).

Li, G., M. Iskandarani, M. LE HENAFF, J. Winokur, O.P. Le Maître, and O.M. Knio. Quantifying initial and wind forcing uncertainties in the Gulf of Mexico. *Computational Geosciences*, 20(5):1133-1153 (doi:10.1007/s10596-016-9581-4) (2016).

Li, J., Z. Li, P. Wang, T.J. Schmit, W. Bai, and R. ATLAS. An efficient radiative transfer model for hyperspectral IR radiance simulation and applications under cloudy-sky conditions. *Journal of Geophysical Research-Atmospheres*, 122(14):7600-7613 (doi:10.1002/2016JD026273) (2017).

Lindstrom, E.J., A.Y. Shcherbina, L. Rainville, J.T. Farrar, L.R. Centurioni, S. DONG, E.A. D'Asaro, C. Eriksen, D.M. Fratantoni, B.A. Hodges, V. Hormann, W.S. Kessler, C.M. Lee, S.C. Risner, L. St. Laurent, and D.L. VOLKOV. Autonomous multi-platform observations during the Salinity Processes in the Upper-ocean Regional Study. *Oceanography*, 30(2):38-48 (doi:10.5670/oceanog.2017.218) (2017).

LOPEZ, H., G. GONI, and S. DONG. A reconstructed South Atlantic Meridional Overturning Circulation time series since 1870. *Geophysical Research Letters*, 44(7):3309-3318 (doi:10.1002/2017GL073227) (2017).

LUMPKIN, R., G. GONI, and K. Dohan. Global oceans: Surface currents. In *State of the Climate in 2016*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 98(8):S81-S84 (doi:10.1175/2017BAMSStateoftheClimate.1) (2017).

LUMPKIN, R., T. Ozgokmen, and L. Centurioni. Advances in the application of surface drifters. *Annual Reviews of Marine Science*, 9:59-81 (doi:10.1146/annurev-marine-010816-060641) (2017).

Ma, J., G.R. FOLTZ, B.J. Soden, G. Huang, J. He, and C. Dong. Will surface winds weaken in response to global warming? *Environmental Research Letters*, 11(12):124012 (doi:10.1088/1748-9326/11/12/124012) (2016).

MARKS, F.D. Advancing the understanding and prediction of tropical cyclones using aircraft observations. In *Advanced Numerical Modeling and Data Assimilation Techniques for Tropical Cyclone Predictions*, U.C. Mohanty and S.G. Gopalakrishnan (eds.). Springer Netherlands (doi:10.1007/978-94-024-0896-6), 3-34 (2016).

McNoldy, B., B. ANNANE, S. Majumdar, J. DELGADO, L. BUCCI, and R. ATLAS. Impact of assimilating CYGNSS data on tropical cyclone analyses and forecasts in a regional OSSE framework. *Marine Technology Society Journal*, 51(1):7-15 (doi:10.4031/MTSJ.51.1.1) (2017).

MEINEN, C.S., S.L. GARZOLI, R.C. PEREZ, E. Campos, A.R. Piola, M.P. Chidichimo, S. DONG, and O.T. Sato. Characteristics and causes of Deep Western Boundary Current transport variability at 34.5°S during 2009-2014. *Ocean Science*, 13(1):175-194 (doi:10.5194/os-13-175-2017) (2017).

Mohanty, U.C., and S.G. GOPALAKRISHNAN (eds.). *Advanced Numerical Modeling and Data Assimilation Techniques for Tropical Cyclone Predictions*. Springer Netherlands (doi:10.1007/978-94-024-0896-6), 746 pp. (2016).

Muhling, B.A., R. Brill, J.T. Lamkin, M.A. Roffer, S.-K. LEE, Y. LIU, and F. Muller-Karger. Projections of future habitat use by Atlantic bluefin tuna: Mechanistic versus correlative distribution models. *ICES Journal of Marine Science*, 74(3):698-716 (doi:10.1093/icesjms/fsw215) (2017).

- Naisbett-Jones, L.C., N.F. PUTMAN, J.F. Stephenson, S. Ladak, and K.A. Young. A magnetic map leads juvenile European eels to the Gulf Stream. *Current Biology*, 27(8):1236-1240 (doi:10.1016/j.cub.2017.03.015) (2017).
- Nolan, D.S., and J.A. ZHANG. Spiral gravity waves radiating from tropical cyclones. *Geophysical Research Letters*, 44(8):3924-3931 (doi:10.1002/2017GL073572) (2017).
- Okazaki, R.R., E.K. Towle, R. VAN HOIDONK, C. Mor, R.N. Winter, A.M. Piggot, R. Cunning, A.C. Baker, J.S. Klaus, P.K. Swart, and C. Langdon. Species-specific responses to climate change and community composition determine future calcification rates of Florida Keys reefs. *Global Change Biology*, 23(3):1023-1035 (doi:10.1111/gcb.13481) (2017).
- Pendleton, L., A. Comte, C. Langdon, J.A. Ekstrom, S.R. Cooley, L. Suatoni, M.W. Beck, L.M. Brander, L. Burke, J.E. Cinner, C. Doherty, P.E.T. Edwards, D. Gledhill, L.-Q. Jiang, R.J. VAN HOIDONK, L. Teh, G.G. Waldbusser, and J. Ritter. Coral reefs and people in a high CO₂ world: Where can science make a difference to people? *PLoS ONE*, 11(11):e0164699 (doi:10.1371/journal.pone.0164699) (2016).
- PIERROT, D., and F.J. Millero. The speciation of metals in natural waters. *Aquatic Geochemistry*, 23(1):1-20 (doi:10.1007/s10498-016-9292-4) (2017).
- Pu, Z., L. Zhang, S. Zhang, B. Gentry, D. Emmitt, B. Demoz, and R. ATLAS. The impact of Doppler wind lidar measurements on high-impact weather forecasting: Regional OSSE and data assimilation studies. In *Data Assimilation for Atmospheric, Oceanic and Hydrological Applications, Volume 3*, S.K. Park and L. Xu (eds.). Springer International, 259-283 (doi:10.1007/978-3-319-43415-5) (2017).
- PUTMAN, N.F. Book review: An ecological perspective on the migrations of marine fishes. *Environmental Biology of Fishes*, 99(10):801-804 (doi:10.1007/s10641-016-0512-y) (2016).
- PUTMAN, N.F., R. LUMPKIN, A.E. Sacco, and K.L. Mansfield. Passive drift or active swimming in marine organisms? *Proceedings of the Royal Society B*, 283(1844):20161689 (doi:10.1098/rspb.2016.1689) (2016).
- PUTMAN, N.F., L.C. Naisbett-Jones, J.F. Stephenson, S. Ladak, and K.A. Young. Response to Durif *et al.* *Current Biology*, 27(18):R1000-R1001 (doi:10.1016/j.cub.2017.08.046) (2017).
- Putrasahan, D.A., I. Kamenkovich, M. LE HÉNAFF, and B.P. Kirtman. Importance of ocean mesoscale variability for air-sea interactions in the Gulf of Mexico. *Geophysical Research Letters*, 44(12):6352-6362 (doi:10.1002/2017GL072884) (2017).
- QUIRINO, T., and S.G. GOPALAKRISHNAN. Advanced diagnostics for the HWRF hurricane modeling system. In *Advanced Numerical Modeling and Data Assimilation Techniques for Tropical Cyclone Predictions*, U.C. Mohanty and S.G. Gopalakrishnan (eds.). Springer Netherlands (doi:10.1007/978-94-024-0896-6), 517-534 (2016).
- Reagan, J., T. Boyer, C. SCHMID, and R. Locarnini. Global oceans: Subsurface salinity. In *State of the Climate in 2016*, J. Blunden and D.S. Arndt (eds.). *Bulletin of the American Meteorological Society*, 98(8):S72-S75 (doi:10.1175/2017BAMSStateoftheClimate.1) (2017).
- Reimer, J.J., W.-J. Cai, L. Xue, R. Vargas, S. Noakes, X. Hu, S.R. Signorini, J.T. Mathis, R.A. Feely, A.J. Sutton, C. Sabine, S. Musielewicz, B. Chen, and R. WANNINKHOF. Time series pCO₂ at a coastal mooring: Internal consistency, seasonal cycles, and interannual variability. *Continental Shelf Research*, 145:95-108 (doi:10.1016/j.csr.2017.06.022) (2017).
- ROGERS, R.F., P.D. REASOR, and J.A. ZHANG. Reply to “Comments on ‘Multiscale structure and evolution of Hurricane Earl (2010) during rapid intensification.’” *Monthly Weather Review*, 145(4):1573-1575 (doi:10.1175/MWR-D-16-0414.1) (2017).
- Rugg, A., G.R. FOLTZ, and R.C. PEREZ. Role of mixed layer dynamics in tropical North Atlantic interannual sea surface temperature variability. *Journal of Climate*, 29(22):8083-8101 (doi:10.1175/JCLI-D-1500867.1) (2016).

- Rydbeck, A.V., E.D. Maloney, and G.J. ALAKA. In situ initiation of east Pacific easterly waves in a regional model. *Journal of the Atmospheric Sciences*, 74(2):333-351 (doi:10.1175/JAS-D-16-0124.1) (2017).
- Sandifer, P.A., L.C. Knapp, T.K. Collier, A.L. Jones, R.P. Juster, C.R. KELBLE, R.K. Kwok, J.V. Milgarese, L.A. Palinkas, D.E. Porter, G.I. Scott, L.M. Smith, W.C. Sullivan, and A.E. Sutton-Grier. A conceptual model to assess stress-associated health effects of multiple ecosystem services degraded by disaster events in the Gulf of Mexico and elsewhere. *Geohealth*, 1(1):17-36 (doi:10.1002/2016GH000038) (2017).
- Shamblin, B.M., P.H. Dutton, D.J. Shaver, D.A. Bagley, N.F. PUTMAN, K.L. Mansfield, L.M. Ehrhart, L.J. Pena, and C.J. Nairna. Mexican origins for the Texas green turtle foraging aggregation: A cautionary tale of incomplete baselines and poor marker resolution. *Journal of Experimental Marine Biology and Ecology*, 488:111-120 (doi:10.1016/j.embe.2016.11.009) (2017).
- Sharp, J.D., R.H. Byrne, X. Liu, R.A. Feely, E.E. Cuyler, R. WANNINKHOF, and S.R. Alin. Spectrophotometric determination of carbonate ion concentrations: Elimination of instrument-dependent offsets and calculation of in situ saturation states. *Environmental Science and Technology*, 51(6):9127-9136 (doi:10.1021/acs.est.7b02266) (2017).
- Smith, R.K., J.A. ZHANG, and M.T. Montgomery. The dynamics of intensification in a Hurricane Weather Research and Forecasting simulation of Hurricane Earl (2010). *Quarterly Journal of the Royal Meteorological Society*, 143(702):293-308 (doi:10.1002/qj.2922) (2017).
- SOUKUP, G.A., and F.D. MARKS. Evaluation of hurricane wind speed analyses in a simulation of Hurricane Earl (2010) using low order wavenumbers. *Monthly Weather Review*, 145(8):3223-3245 (doi:10.1175/MWR-D-14-00281.1) (2017).
- Staley, C., T. Kaiser, M.L. GIDLEY, I.C. ENOCHS, P.R. JONES, K.D. GOODWIN, C.D. SINIGALLIANO, M.J. Sadowsky, and C.L. Chun. A next-generation sequencing approach to characterize the impacts of land-based sources of pollution on the microbiota of southeast Florida coral reefs. *Applied and Environmental Microbiology*, 83(10):e03378-16 (doi:10.1128/AEM.03378-16) (2017).
- Steward, J.L., A. AKSOY, and Z.S. Haddad. Parallel direct solution of the Ensemble Square-Root Kalman Filter equations with observation principal components. *Journal of Atmospheric and Oceanic Technology*, 34(9):1867-1884 (doi:10.1175/JTECH-D-16-0140.1) (2017).
- Sutton, A.J., R. WANNINKHOF, C.L. Sabine, R.A. Feely, M.F. Cronin, and R.A. Weller. Variability and trends in surface seawater $p\text{CO}_2$ and CO_2 flux in the Pacific. *Geophysical Research Letters*, 44(11):5627-5636 (doi:10.1002/2017GL073814) (2017).
- Symonds, E.M., C. SINIGALLIANO, M. GIDLEY, W. Ahmed, S.M. McQaig-Ulrich, and M. Breitbart. Faecal pollution along the southeastern coast of Florida and insight into the use of pepper mild mottle virus as an indicator. *Journal of Applied Microbiology*, 121(5):1469-1481 (doi:10.1111/jam.13252) (2016).
- TRINANES, J.A., M.J. Olascoaga, G.J. GONI, N.A. Maximenko, D.A. Griffin, and J. Hafner. Analysis of flight MH370 potential debris trajectories using ocean observations and numerical model results. *Journal of Operational Oceanography*, 9(2):126-138 (doi:10.1080/1755876X.2016.1248149) (2016).
- VAN HOIDONK, R., J. Maynard, J. Tamelander, J. Gove, G. Ahmadi, L. Raymundo, G. Williams, S.F. Heron, and S. Planes. Local-scale projections of coral reef futures and implications of the Paris Agreement. *Nature Scientific Reports*, 6:39666 (doi:10.1038/srep39666) (2016).
- VOLKOV, D.L., S.-K. LEE, F.W. Landerer, and R. LUMPKIN. Decade-long deep-ocean warming detected in the subtropical South Pacific. *Geophysical Research Letters*, 44(2):927-936 (doi:10.1002/2016GL071661) (2017).
- Wang, X., H. Liu, and G.R. FOLTZ. Persistent influence of tropical North Atlantic wintertime sea surface temperature on the subsequent Atlantic hurricane season. *Geophysical Research Letters*, 44(15):7927-7935 (doi:10.1002/2017GL074801) (2017).

- WANNINKHOF, R., and J. TRINANES. The impact of changing wind speeds on gas transfer and its effect on global air-sea CO₂ fluxes. *Global Biogeochemical Cycles*, 31(6):961-974 (doi:10.1002/2016GB005592) (2017).
- Wentz, F.J., L. Ricciardulli, E. Rodriguez, B.W. Stiles, M.A. Bourassa, D.G. Long, R.N. HOFFMAN, A. Stoffelen, A. Verhoef, L.W. O'Neill, J.T. Farrar, D. Vandemark, A.G. Fore, S.M. Hristova-Veleva, F.J. Turk, R. Gaston, and D. Tyler. Evaluating and extending the ocean wind climate data record. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 10(5):2165-2185 (doi:10.1109/JSTARS.2016.2643641) (2017).
- Williams, N.L., L.W. Juranek, R.A. Feely, K.S. Johnson, J.L. Sarmiento, L.D. Talley, A.G. Dickson, A.R. Gray, R. WANNINKHOF, J.L. Russell, S.C. Riser, and Y. Takeshita. Calculating surface ocean pCO₂ from biogeochemical Argo floats equipped with pH: An uncertainty analysis. *Global Biogeochemical Cycles*, 31(3):591-604 (doi:10.1002/2016GB005541) (2017).
- Xu, Y-Y., W.-J. Cai, Y. Gao, R. WANNINKHOF, J. Salisbury, B. Chen, J.J. Reimer, S. Gonski, and N. Hussain. Short-term variability of aragonite saturation state in the central Mid-Atlantic Bight. *Journal of Geophysical Research-Oceans*, 122(5):4274-4290 (doi:10.1002/2017JC012901) (2017).
- Zhang, G., W. Perrie, X. Li, and J.A. ZHANG. A hurricane morphology and surface wind vector estimation model for C-band cross-polarization SAR. *IEEE Transactions on Geoscience and Remote Sensing*, 55(3):1743-1751 (doi:10.1109/TGRS.2016.2631663) (2017).
- ZHANG, J.A., and X. Li. Tropical cyclone multiscale wind features from spaceborne synthetic aperture radar. In *Hurricane Monitoring with Spaceborne Synthetic Aperture Radar*, X. Li (ed.). Springer Singapore (doi:10.1007/978-981-10-2893-9_2), 25-39 (2017).
- ZHANG, J.A., R.F. ROGERS, and V. Tallapragada. Impact of parameterized boundary layer structure on tropical cyclone rapid intensification forecasts in HWRF. *Monthly Weather Review*, 145(4):1413-1426 (doi:10.1175/MWR-D-16-0129.1) (2017).
- ZHANG, J.A., J J. CIONE, E.A. KALINA, E.W. Uhlhorn, T. Hock, and J.A. Smith. Observations of infrared sea surface temperature and air-sea interaction in Hurricane Edouard (2014) using GPS dropsondes. *Journal of Atmospheric and Oceanic Technology*, 34(6):1333-1349 (doi:10.1175/JTECH-D-16-0211.1) (2017).
- Zhang, S., Z. Pu, D.J. Posselt, and R. ATLAS. Impact of CYGNSS ocean surface wind speeds on numerical simulations of a hurricane in observing system simulation experiments. *Journal of Atmospheric and Oceanic Technology*, 34(2):375-383 (doi:10.1175/JTECH-D-16-0144.1) (2017).
- ZHANG, X., S.G. GOPALAKRISHNAN, S. Trahan, T.S. QUIRINO, Q. Liu, Z. Zhang, G. ALAKA, and and V. Tallapragada. Representing multiple scales in the Hurricane Weather Research and Forecasting modeling system: Design of multiple sets of movable multilevel nesting and the basin-scale HWRF forecast verification. *Weather and Forecasting*, 31(6):2019-2034 (doi:10.1175/WAF-D-16-0087.1) (2016).
- Zhao, H., C. WANG, and R. Yoshida. Modulation of tropical cyclogenesis in the western North Pacific by the quasi-biweekly oscillation. *Advances in Atmospheric Sciences*, 33(12):1361-1375 (doi:10.1007/s00376-016-5267-z) (2016).
- Zou, Z., D. Zhao, B. Liu, J.A. ZHANG, and J. Huang. Observation-based parameterization of air-sea fluxes in terms of the wind speed and atmospheric stability under low-to-moderate wind conditions. *Journal of Geophysical Research-Oceans*, 122(5):4123-4142 (doi:10.1002/2016JC012399) (2017).

FY-2018

AKSOY, A., J.A. ZHANG, B.W. KLOTZ, E.W. Uhlhorn, and J.J. CIONE. Axisymmetric initialization of the atmosphere and ocean for idealized coupled hurricane simulations. *Journal of Advances in Modeling Earth Systems*, 9(7):2672-2695 (doi:10.1002/2017MS000977) (2017).

Androulidakis, Y., V. Kourafalou, T. Ozgokmen, O. Garcia-Pineda, B. Lund, M. LE HENAFF, C. Hu, B.K. Haus, G. Novelli, C. Guigand, H.-S. Kang, L. Hole, and J. Horstmann. Influence of river-induced fronts on hydrocarbon transport: A multiplatform observational study. *Journal of Geophysical Research-Oceans*, 123(5):3259-3285 (doi:10.1029/2017JC013514) (2018).

ANNANE, B., B. McNoldy, S.M. Leidner, R. HOFFMAN, R. ATLAS, and S.J. Majumdar. A study of the HWRF analysis and forecast impact of realistically simulated CYGNSS observations assimilated as scalar wind speeds and as VAM wind vectors. *Monthly Weather Review*, 146(7):2221-2236 (doi:10.1175/MWR-D-17-0240.1) (2018).

Archer, M.R., S.R. Keating, M. Roughan, W.E. Johns, R. LUMPKIN, F. Beron-Vera, and L.K. Shay. The kinematic similarity of two western boundary currents revealed by sustained high-resolution observations. *Geophysical Research Letters*, 45(12):6176-6185 (doi:10.1029/2018GL078429) (2018).

Balaguru, K., G.R. FOLTZ, and L.R. Leung. Increasing magnitude of hurricane rapid intensification in the central and eastern tropical Atlantic. *Geophysical Research Letters*, 45(9):4238-4247 (doi:10.1029/2018GL077597) (2018).

Balaguru, K., G.R. FOLTZ, L.R. Leung, S.M. Hagos, and D.R. Judi. On the use of ocean dynamic temperature for hurricane intensity forecasting. *Weather and Forecasting*, 33(2):411-418 (doi:10.1175/WAF-D-17-0143.1) (2018).

BARINGER, M.O., J. Willis, D.A. Smeed, B. Moat, S. DONG, W.R. Hobbs, D. Rayner, W.E. Johns, G. GONI, M. Lankhorst, and U. Send. Global oceans—Meridional overturning and oceanic heat transport circulation observations in the North Atlantic Ocean. In *State of the Climate in 2017*, J. Blunden, D.S. Arndt, and G. Hartfield (eds.). *Bulletin of the American Meteorological Society*, 99(8):S91-S94 (doi:10.1175/2018BAMSStateoftheClimate.1) (2018).

Bashmachnikov, I.L., M.A. Sokolovskiy, T.V. Belonenko, D.L. VOLKOV, P.E. Isachsen, and X. Carton. On the vertical structure and stability of the Lofoten vortex in the Norwegian Sea. *Deep Sea Research, Part I*, 128:1-27 (doi:10.1016/j.dsr.2017.08.001) (2017).

Bell, G.D., E.S. Blake, C.W. Landsea, S.B. GOLDENBERG, and R.J. Pasch. The tropics—Atlantic basin. In *State of the Climate in 2017*, J. Blunden, D.S. Arndt, and G. Hartfield (eds.). *Bulletin of the American Meteorological Society*, 99(8):S114-S118 (doi:10.1175/2018BAMSStateoftheClimate.1) (2018).

Beron-Vera, F.J., M.J. Olascoaga, Y. Wang, J. TRINANES, and P. Perez-Brunius. Enduring Lagrangian coherence of a Loop Current ring assessed using independent observations. *Scientific Reports*, 8:11275 (doi:10.1038/s41598-018-29582-5) (2018).

Boukabara, S.-A., K. Ide, N. Shahroudi, Y. Zhou, T. Zhu, R. Li, L. CUCURULL, R. ATLAS, S.P.F. CASEY, and R.N. HOFFMAN. Community global Observing System Simulation Experiment (OSSE) package (CGOP): Perfect observations simulation validation. *Journal of Atmospheric and Oceanic Technology*, 35(1):207-226 (doi:10.1175/JTECH-D-17-00771) (2018).

Bowers, G.S., D.M. Smith, N.A. Kelley, G.F. Martinez-McKinney, S.A. Cummer, J.R. Dwyer, S. Heckman, R.H. Holzworth, F. MARKS, P. REASOR, J. GAMACHE, J. DUNION, T. Richards, and H.K. Rassoul. A terrestrial gamma-ray flash inside the eyewall of Hurricane Patricia. *Journal of Geophysical Research-Atmospheres*, 123(10):4977-4987 (doi:10.1029/2017JD027771) (2018).

- Brammer, A., C.D. Thorncroft, and J.P. DUNION. Observations and predictability of a nondeveloping tropical disturbance over the eastern Atlantic. *Monthly Weather Review*, 146(9):3079-3096 (doi:10.1175/MWR-D-18-0065.1) (2018).
- Bruno, J.F., A.E. Bates, C. Cacciapaglia, E.P. Pike, S.C. Amstrup, R. VAN HOOIDONK, S.A. Henson, and R.B. Aronson. Climate change threatens the world's marine protected areas. *Nature Climate Change*, 8(6):499-503 (doi:10.1038/s41558-018-0149-2) (2018).
- Cheung, K., Z. Yu, R.L. Elsberry, M. Bell, H. Jiang, T.C. Lee, K.-C. Lu, Y. Oikawa, L. Qi, R.F. ROGERS, and K. Tsuboki. Recent advances in research and forecasting of tropical cyclone rainfall. *Tropical Cyclone Research and Review*, 7(2):106-127 (doi:10.6057/2018TCRR02.03) 2018.
- CHRISTOPHERSEN, H., A. AKSOY, J. DUNION, and S. ABERSON. Composite impact of Global Hawk unmanned aircraft dropwindsondes on tropical cyclone analyses and forecasts. *Monthly Weather Review*, 146(7):2297-2314 (doi:10.1175/MWR-D-17-0304.1) (2018).
- CHRISTOPHERSEN, H., R. ATLAS, A. AKSOY, and J. DUNION. Combined use of satellite observations and Global Hawk unmanned aircraft dropwindsondes for improved tropical cyclone analyses and forecasts. *Weather and Forecasting*, 33(4):1021-1031 (doi:10.1175/WAF-D-17-0167.1) (2018).
- Cyronak, T., A.J. Andersson, C. Langdon, R. Albright, N.R. Bates, K. Caldeira, R. CARLTON, J.E. Corredor, R.B. Dunbar, I. ENOCHS, J. Erez, B.D. Eyre, J.-P. Gattuso, D. Gledhill, H. Kayanne, D.I. Kline, D.A. Kowek, C. Lantz, B. Lazar, D. MANZELLO, A. McMahon, M. Melendez, H.N. Page, I.R. Santos, E. Shaw, J. Silverman, A. Suzuki, L. Teneva, A. Watanabe, and S. Yamamoto. Taking the metabolic pulse of the world's coral reefs. *PLoS ONE*, 13(1):e0190872 (doi:10.1371/journal.pone.0190872) (2018).
- Didlake, A.C., P.D. REASOR, R.F. ROGERS, and W.-C. Lee. Dynamics of the transition from spiral rainbands to a secondary eyewall in Hurricane Earl (2010). *Journal of the Atmospheric Sciences*, 75(9):2909-2929 (doi:10.1175/JAS-D-17-0348.1) (2018).
- Doyle, J.D., J.R. Moskaitis, J.W. Feldmeier, R.J. Ferek, M. Beaubien, M.M. Bell, D.L. Cecil, R.L. Creasey, P. Duran, R.L. Elsberry, W.A. Komaromi, J. Molinari, D.R. Ryglicki, D.P. Stern, C.S. Velden, X. Wang, T. Allen, B.S. Barrett, P.G. Black, J.P. DUNION, K.A. Emanuel, P.A. Harr, L. Harrison, E.A. Hendricks, D. Herndon, W.Q. Jeffries, S.J. Majumdar, J.A. Moore, Z. Pu, R.F. ROGERS, E.R. Sanabia, G.J. Tripoli, and D.-L. Zhang. A view of tropical cyclones from above: The Tropical Cyclone Intensity Experiment. *Bulletin of the American Meteorological Society*, 98(10):2113-2134 (doi:10.1175/BAMS-D-16-0055.1) (2017).
- ENOCHS, I.C., D.P. MANZELLO, P.J. JONES, C. AGUILAR, K. Cohen, L. VALENTINO, S. Schopmeyer, G. KOLODZIEJ, M. JANKULAK, and D. Lirman. The influence of diel carbonate chemistry fluctuations on the calcification rate of *Acropora cervicornis* under present day and future acidification conditions. *Journal of Experimental Marine Biology and Ecology*, 506:15-143 (doi:10.1016/j.jembe.2018.06.007) (2018).
- Evans, C., K.M. Wood, S.D. ABERSON, H.M. Archambault, S.M. Milrad, L.F. Bosart, K.L. Corbosiero, C.A. Davis, J.R. Dias Pinto, J. Doyle, C. Fogarty, T.J. Galarneau, C.M. Grams, K.S. Griffin, J. Gyakum, R.E. Hart, N. Kitabatake, H.S. Lentink, R. McTaggart-Cowan, W. Perrie, J.F.D. Quinting, C.A. Reynolds, M. Riemer, E.A. Ritchie, Y. Sun, and F. Zhang. The extratropical transition of tropical cyclones, Part 1: Cyclone evolution and direct impacts. *Monthly Weather Review*, 145(11):4317-4344 (doi:10.1175/MWR-D-17-0027.1) (2017).
- Feely, R.A., R. WANNINKHOF, B.R. Carter, P. Landschutzer, A. Sutton, and J.A. TRINANES. Global oceans—Global ocean carbon cycle. In *State of the Climate in 2017*, J. Blunden, D.S. Arndt, and G. Hartfield (eds.). *Bulletin of the American Meteorological Society*, 99(8):S96-S100 (doi:10.1175/2018BAMS StateoftheClimate.1) (2018).
- FOLTZ, G.R., K. Balaguru, and S. Hagos. Interbasin differences in the relationship between SST and tropical cyclone intensification. *Monthly Weather Review*, 146(3):853-870 (doi:10.1175/MWR-D-17-0155.1) (2018).

FOLTZ, G.R., C. SCHMID, and R. LUMPKIN. An enhanced PIRATA dataset for tropical Atlantic ocean-atmosphere research. *Journal of Climate*, 31(4):1499-1524 (doi:10.1175/JCLI-D-16-0816.1) (2018).

Gintert, B.E., D.P. MANZELLO, I.C. ENOCHS, G. KOLODZIEJ, R. Carlton, A.C.R. Gleason, and N. Gracias. Marked annual coral bleaching resilience of an inshore patch reef in the Florida Keys: A nugget of hope, aberrance, or last man standing? *Coral Reefs*, 37(2):533-547 (doi:10.1007/s00338-018-1678-x) (2018).

Glynn, P.W., J.S. Feingold, A. Baker, S. Banks, I.B. Baums, J. Cole, M.W. Colgan, P. Fong, P.J. Glynn, D. MANZELLO, B. Riegl, B.I. Ruttenberg, T.B. Smith, and M. Vera-Zambrano. State of corals and coral reefs of the Galapagos Islands (Ecuador): Past, present, and future. *Marine Pollution Bulletin*, 133:717-733 (doi:10.1016/j.marpolbul.2018.06.002) (2018).

GOES, M., J. CHRISTOPHERSEN, S. DONG, G. GONI, and M. BARINGER. An updated estimate of salinity for the Atlantic Ocean sector using temperature-salinity relationships. *Journal of Oceanic and Atmospheric Technology*, 35(9):1771-1784 (doi:10.1175/JTECH-D-18-0029.1) (2018).

GOMEZ, F.A., Y.H. Spitz, H.P. Batchelder, and M.A. Correa-Ramirez. Intraseasonal patterns in coastal plankton biomass off central Chile derived from satellite observations and a biochemical model. *Journal of Marine Systems*, 174:106-118 (doi:10.1016/j.jmarsys.2017.05.003) (2017).

GOMEZ, F.A., S.-K. LEE, Y. Liu, F.J. Hernandez, F.E. Muller-Karger, and J.T. Lamkin. Seasonal patterns in phytoplankton biomass across the northern and deep Gulf of Mexico: A numerical model study. *Biogeosciences*, 15(11):3561-3576 (doi:10.5194/bg-15-3561-2018) (2018).

GONI, G.J., J.A. Knaff, I.-I. Lin, and R. DOMINGUES. The tropics—Tropical cyclone heat potential. In *State of the Climate in 2017*, J. Blunden, D.S. Arndt, and G. Hartfield (eds.). *Bulletin of the American Meteorological Society*, 99(8):S129-S132 (doi:10.1175/2018BAMSStateoftheClimate.1) (2018).

GOODWIN, K.D., F.E. Muller-Karger, A. Djurhuus, L.Z. Allen, A.E. Allen, J.P. McCrow, and G. Canonico Hyde. Molecular approaches for an operational marine biodiversity observation network. In *World Seas: An Environmental Evaluation, Vol. III: Ecological Issues and Environmental Impacts* (C. Sheppard, ed.). Academic Press, 2nd edition (doi:10.1016/B978-0-12-805052-1.00032-2), 613-631 (2018).

Gravinese, P.M., I.C. ENOCHS, D.P. MANZELLO, and R. van Woesik. Warming and $p\text{CO}_2$ effects on Florida stone crab larvae. *Estuarine, Coastal and Shelf Science*, 204:193-201 (doi:10.1016/j.ecss.2018.02.021) (2018).

Gray, A.R., K.S. Johnson, S.M. Bushinsky, S.C. Riser, J.L. Russell, L.D. Talley, R. WANNINKHOF, N.L. Williams, and J.L. Sarmiento. Autonomous biogeochemical floats detect significant carbon dioxide outgassing in the high-latitude Southern Ocean. *Geophysical Research Letters*, 45(17):9049-9057 (doi:10.1029/2018GL078013) (2018).

Groves S.H., D.M. Holstein, I.C. ENOCHS, G. KOLODZIEJ, D.P. MANZELLO, M.E. Brandt, and T.B. Smith. Growth rates of *Porites astreoides* and *Orbicella franksi* in mesophotic habitats surrounding St. Thomas, US Virgin Islands. *Coral Reefs*, 37(2):345-354 (doi:10.1007/s00338-018-1660-7) (2018).

Guimond, S.R., J.A. ZHANG, J.W. Sapp, and S.J. Frasier. Coherent turbulence in the boundary layer of Hurricane Rita (2005) during an eyewall replacement cycle. *Journal of the Atmospheric Sciences*, 75(9):3071-3093 (doi:10.1175/JAS-D-17-0347.1) (2018).

HOFFMAN, R.N. The effect of thinning and superobservations in a simple one-dimensional data analysis with mischaracterized error. *Monthly Weather Review*, 146(4):1181-1195 (doi:10.1175/MWR-D-17-0363.1) (2018).

HOFFMAN, R.N., N. Prive, and M. Bourassa. Comments on "Reanalysis and observations: What's the difference?" *Bulletin of the American Meteorological Society*, 98(11):2455-2459 (doi:10.1175/BAMS-D-17-0008.1) (2017).

HOLBACH, H.M., E.W. Uhlhorn, and M.A. Bourassa. Off-nadir SFMR brightness temperature measurements in high-wind conditions. *Journal of Atmospheric and Oceanic Technology*, 35(9):1865-1879 (doi:10.1175/JTECH-D-18-0005.1) (2018).

Hu, X., M.F. Nuttall, H. Wang, H. Yao, C.J. Staryk, M.M. McCutcheon, R.J. Eckert, J.A. Embresi, M.A. Johnston, E.L. Hickerson, G.P. Schmahl, D.P. MANZELLO, I.C. ENOCHS, S. DiMarco, and L. BARBERO. Seasonal variability of carbonate chemistry and decadal changes in waters of a marine sanctuary in the northwestern Gulf of Mexico. *Marine Chemistry*, 205:16-28 (doi:10.1016/j.marchem.2018.07.006) (2018).

Huang, L., X. Li, B. Liu, J.A. ZHANG, D. Shen, Z. Zhang, and W. Yu. Tropical cyclone boundary layer rolls in synthetic aperture radar imagery. *Journal of Geophysical Research-Oceans*, 123(4):2981-2996 (doi:10.1029/2018JC013755) (2018).

Humphreys, A.F., J. Halfar, J.C. Ingle, D.P. MANZELLO, C.E. Reymond, H. Westphal, and B. Riegl. Effect of seawater, temperature, pH, and nutrients on the distribution and character of low abundance shallow water benthic foraminifera in the Galapagos. *PLoS ONE*, 13(9):e0202746 (doi:10.1371/journal.pone.0202746) (2018).

Illig, S., E. Cadier, M.-L. Bachelery, and M. KERSALE. Subseasonal coastal-trapped wave propagations in the southeastern Pacific and Atlantic oceans: 1. A new approach to estimate wave amplitude. *Journal of Geophysical Research-Oceans*, 123(6):3915-3941 (doi:10.1029/2017JC013539) (2018).

Johnson, G.C., J. Reagan, J.M. Lyman, T. Boyer, C. SCHMID, and R. Locarnini. Global oceans—Salinity. In *State of the Climate in 2017*, J. Blunden, D.S. Arndt, and G. Hartfield (eds.). *Bulletin of the American Meteorological Society*, 99(8):S77-S78 (doi:10.1175/2018BAMSSStateoftheClimate.1) (2018).

Kelly, E.A., Z. Feng, M.L. GIDLEY, C.D. SINIGALLIANO, N. Kumar, A.G. Donahue, and A.J.H.M. Reniers. Effect of beach management policies on recreational water quality. *Journal of Environmental Management*, 212:266-277 (doi:10.1016/j.jenvman.2018.02.012) (2018).

Kelly, K.A., J.K. Willis, G. Reverdin, S. DONG, and L. Thompson. Monitoring and interpreting mid-latitude oceans by satellite altimetry. In *Satellite Altimetry Over Oceans and Land Surfaces*, D. Stammer and A. Cazenave (eds.). CRC Press, 211-230 (2017).

KERSALE, M., T. Lamont, S. Speich, T. Terre, R. Laxenaire, M.J. Roberts, M.A. van den Berg, and I.J. Ansorge. Moored observations of mesoscale features in the Cape Basin: Characteristics and local impacts on water mass distributions. *Ocean Science*, 14(5):923-945 (doi:10.5194/os-14-923-2018) (2018).

Kharbush, J.J., L.R. THOMPSON, M.F. Haroon, R. Knight, and L.I. Aluwihare. Hopanoid-producing bacteria in the Red Sea include the major marine nitrite-oxidizers. *FEMS Microbiology Ecology*, 94(6):fyy063 (doi:10.1093/femsec/fyy063) (2018).

Kieu, C., K. Keshavamurthy, V. Tallapragada, S. GOPALAKRISHNAN, and S. Trahan. On the growth of intensity forecast errors in the operational Hurricane Weather Research and Forecasting (HWRF) model. *Quarterly Journal of the Royal Meteorological Society*, 144(715):1803-1819 (doi:10.1002/qj.3344) (2018).

KLOTZ, B.W., and H. Jiang. Examination of surface wind asymmetries in tropical cyclones: Part I. General structure and wind shear impacts. *Monthly Weather Review*, 145(10):3989-4009 (doi:10.1175/MWR-D-17-0019.1) (2017).

Knight, R., A. Vrbanac, B.C. Taylor, A. Aksенов, C. Callewaert, J. Debelius, A. Gonzalez, T. Kosciolek, L.-I. McCall, D. McDonald, A.V. Melnik, J.T. Morton, J. Navas, R.A. Quinn, J.G. Sanders, A.D. Swafford, L.R. THOMPSON, A. Tripathi, Z.Z. Xu, J.R. Zaneveld, Q. Zhu, J.G. Caporaso, and P.C. Dorrestein. Best practices for analyzing microbiomes. *Nature Reviews Microbiology*, 16(7):410-422 (doi:10.1038/s41579-018-0029-9) (2018).

Kourafalou, V., Y. Androulidakis, M. LE HENAFF, and H.-S. Kang. The dynamics of Cuba anticyclones (CubANs) and interaction with the Loop Current/Florida Current system. *Journal of Geophysical Research-Oceans*, 122(10):7897-7923 (doi:10.1002/2017JC012928) (2017).

Kourafalou, V.H., Y.S. Androulidakis, H. Kang, R.H. SMITH, and A. Valle-Levinson. Physical connectivity between Pulley Ridge and Dry Tortugas coral reefs under the influence of the Loop Current/Florida Current system. *Progress in Oceanography*, 165:75-99 (doi:10.1016/j.pocean.2018.05.004) (2018).

Le Quéré, C., R.M. Andrew, P. Friedlingstein, S. Sitch, J. Pongratz, A.C. Manning, J.I. Korsbakken, G.P. Peters, J.G. Canadell, R.B. Jackson, T.A. Boden, P.P. Tans, O.D. Andrews, V.K. Arora, D.C.E. Bakker, L. BARBERO, M. Becker, R.A. Betts, L. Bopp, F. Chevallier, L.P. Chini, P. Ciais, C.E. Cosca, J. Cross, K. Currie, T. Gasser, I. Harris, J. Hauck, V. Haverd, R.A. Houghton, C.W. Hunt, G. Hurtt, T. Ilyina, A.K. Jain, E. Kato, M. Kautz, R.F. Keeling, K. Klein Goldewijk, A. Kötzinger, P. Landschützer, N. Lefèvre, A. Lenton, S. Lienert, I. Lima, D. Lombardozzi, N. Metzl, F. Millero, P.M.S. Monteiro, D.R. Munro, J.E.M.S. Nabel, S. Nakaoka, Y. Nojiri, X.A. Padin, A. Peregon, B. Pfeil, D. PIERROT, B. Poulet, G. Rehder, J. Reimer, C. Rödenbeck, J. Schwinger, R. Séférian, I. Skjelvan, B.D. Stocker, H. Tian, B. Tilbrook, F.N. Tubiello, I.T. van der Laan-Luijkx, G.R. van der Werf, S. van Heuven, N. Viovy, N. Vuichard, A.P. Walker, A.J. Watson, A.J. Wiltshire, S. Zaehle, and D. Zhu. Global carbon budget 2017. *Earth System Science Data*, 10(1):405-448 (doi:10.5194/essd-10-405-2018) (2018).

LEE, S.-K., H. LOPEZ, E.-S. Chung, P. DiNezio, S.-W. Yeh, and A.T. Wittemberg. On the fragile relationship between El Niño and California rainfall. *Geophysical Research Letters*, 45(2):907-915 (doi:10.1002/2017GL076197) (2018).

Leidner, S.M., B. ANNANE, B. McNoldy, R. HOFFMAN, and R. ATLAS. Variational analysis of simulated ocean surface winds from the Cyclone Global Navigation Satellite System (CYGNSS) and evaluation using a regional OSSE. *Journal of Atmospheric and Oceanic Technology*, 35(8):1571-1584 (doi:10.1175/JTECH-D-17-0136.1) (2018).

LEIGHTON, H., S. GOPALAKRISHNAN, J.A. ZHANG, R.F. ROGERS, Z. Zhang, and V. Tallapragada. Azimuthal distribution of deep convection, environmental factors, and tropical cyclone rapid intensification: A perspective from HWRF ensemble forecasts of Hurricane Edouard (2014). *Journal of the Atmospheric Sciences*, 75(1):275-295 (doi:10.1175/JAS-D-17-0171.1) (2018).

Leroux, M.-D., K. Wood, R.L. Elsberry, E.O. Cayanan, E. Hendricks, M. Kucas, P. Otto, R. ROGERS, B. Sampson, and Z. Yu. Recent advances in research and forecasting of tropical cyclone track, intensity, and structure at landfall. *Tropical Cyclone Research and Review*, 7(2):85-105 (doi:10.6057/2018TCRR02.02) (2018).

LOPEZ, H., R. West, S. DONG, G. GONI, B. Kirtman, S.-K. LEE, and R. ATLAS. Early emergence of anthropogenically-forced heat waves in the western United States and Great Lakes. *Nature Climate Change*, 8(5):414-420 (doi:10.1038/s41558-018-0116-y) (2018).

LUMPKIN, R., G. GONI, and K. Dohan. Global oceans—surface currents. In *State of the Climate in 2017*, J. Blunden, D.S. Arndt, and G. Hartfield (eds.). *Bulletin of the American Meteorological Society*, 99(8):S87-S91 (doi:10.1175/2018BAMSStateoftheClimate.1) (2018).

Ma, J., R. Chadwick, K.-H. Seo, C. Dong, G. Huang, G.R. FOLTZ, and J.H. Jiang. Responses of the tropical atmospheric circulation to climate change and connection to the hydrological cycle. *Annual Review of Earth and Planetary Sciences*, 46:549-580 (doi:10.1146/annurev-earth-082517-010102) (2018).

MAJUMDER, S., and C. SCHMID. A study of the variability of the Benguela Current volume transport. *Ocean Science*, 14(2):273-283 (doi:10.5194/os-14-273-2018) (2018).

Mansfield, K.M., M.L. Mendilaharsu, N.F. PUTMAN, M.A.G. dei Marcovaldi, A.E. Sacco, G. Lopez, T. Pires, and Y. Swimmer. First satellite tracks of South Atlantic sea turtle “lost years”: Seasonal variation in trans-equatorial movement. *Proceedings of the Royal Society B*, 284(1868):20171730 (doi:10.1098/rspb.2017.1730) (2017).

MANZELLO, D.P., I.C. ENOCHS, G. KOLODZIEJ, R. CARLTON, and L. VALENTINO. Resilience in carbonate production despite three coral bleaching events in 5 years on an inshore patch reef in the Florida Keys. *Marine Biology*, 165(6):99 (doi:10.1007/s00227-018-3354-7) (2018).

Martinez, J., M.M. Bell, J.L. Vigh, and R.F. ROGERS. Examining tropical cyclone structure and intensification with the FLIGHT+ dataset from 1999 to 2012. *Monthly Weather Review*, 145(11):4401-4421 (doi:10.1175/MWR-D-17-0011.1) (2017).

Martinez-Urtaza, J., R. van Aerle, M. Abanto, J. Haendiges, R.A. Myers, J. TRINANES, C. Baker-Austin and N. Gonzalez-Escalona. Genomic variation and evolution of *Vibrio parahaemolyticus* ST36 over the course of a transcontinental epidemic expansion. *mbIO*, 8(6):e01425-17 (doi:10.1128/mBio.01425-17) (2017).

Martinez-Urtaza, J., J. TRINANES, M. Abanto, A. Lozano-Leon, J. Llovo-Taboada, M. Garcia-Campello, A. Pousa, A. Powell, C. Baker-Austin, and N. Gonzalez-Escalona. Epidemic dynamics of *Vibrio parahaemolyticus* illness in a hotspot of disease emergence, Galicia, Spain. *Emerging Infectious Diseases*, 24(5):852-859 (doi:10.3201/eid2405.171700) (2018).

McDonald, D., E.R. Hyde, J.W. Debelius, J.T. Morton, A. Gonzalez, G. Ackermann, A.A. Aksnov, B. Behsaz, C. Brennan, Y. Chen, L. DeRight Goldasich, P.C. Dorrestein, R.R. Dunn, A.K. Fahimipour, J. Gaffney, J.A. Gilbert, G. Gogul, J.L. Green, P. Hugenholtz, G. Humphrey, C. Huttenhower, M.A. Jackson, S. Janssen, D.V. Jeste, L. Jiang, S.T. Kelley, D. Knights, T. Kosciolek, J. Ladau, J. Leach, C. Marotz, D. Meleshko, A.V. Melnik, J.L. Metcalf, H. Mohimani, E. Montassier, J. Navas-Molina, T.T. Nguyen, S. Peddada, P. Pevzner, K.S. Pollard, G. Rahnavard, A. Robbins-Pianka, N. Sangwan, J. Shorenstein, L. Smarr, S.-J. Song, T. Spector, A.D. Swafford, V.G. Thackray, L.R. THOMPSON, A. Tripathi, Y. Vazquez-Baeza, A. Vrbanac, P. Wischmeyer, E. Wolfe, Q. Zhu, and R. Knight. American Gut: An open platform for citizen-science microbiome research. *mSystems*, 3(3):e00031.18 (doi:10.1128/mSystems.00031.18) (2018).

MEINEN, C.S., S. Speich, A.R. Piola, I. Ansorge, E. Campos, M. KERSALE, T. Terre, M.-P. Chidichimo, T. Lamont, O.T. Sato, R.C. PEREZ, D. Valla, M. van den Berg, M. LE HENAFF, S. DONG, and S.L. GARZOLI. Meridional Overturning Circulation transport variability at 34.5°S during 2009-2017: Baroclinic and barotropic flows and the dueling influence of the boundaries. *Geophysical Research Letters*, 45(9):4810-4188 (doi:10.1029/2018GL077408) (2018).

Michaud, J.M., L.R. THOMPSON, D. Kaul, J.L. Espinoza, R.A. Richter, Z.Z. Xu, C. Lee, K.M. Pham, C.M. Beall, F. Malfatti, F. Azam, R. Knight, M.D. Burkart, C.L. Dupont, and K.A. Prather. Taxon-specific aerosolization of bacteria and viruses in an experimental ocean-atmosphere mesocosm. *Nature Communications*, 9(1):2017 (doi:10.1038/s41467-018-04409-z) (2018).

MILLETTE, N.C., J. Grosse, W.M. Johnson, M.J. Jungbluth, and E.A. Suter. Hidden in plain sight: The importance of cryptic interactions in marine plankton. *Limnology and Oceanography Letters*, 3(4):341-356 (doi:10.1002/lol2.10084) (2018).

MILLETTE, N.C., C. KELBLE, A. Linhoss, S. Ashby, and L. VISSER. Shift in baseline chlorophyll *a* concentration following a three-year *Synechococcus* bloom in southeastern Florida. *Bulletin of Marine Science*, 94(1):3-19 (doi:10.5343/bms.2017.1046) (2018).

Ming, J., and J.A. ZHANG. Direct measurements of momentum flux and dissipative heating in the surface layer of tropical cyclones during landfalls. *Journal of Geophysical Research-Atmospheres*, 123(10):4926-4938 (doi:10.1029/2017JD028076) (2018).

Morfeld, M., D. Hodyss, and J. PETERJOY. Variational particle smoothers and their localization. *Quarterly Journal of the Royal Meteorological Society*, 144(712):806-825 (doi:10.1002/qj.3256) (2018).

Muller-Karger, F.E., P. Miloslavich, N.J. Bax, S. Simmons, M.J. Costello, I. Sousa Pinto, G. Canonico, W. Turner, M. Gill, E. Montes, B.D. Best, J. Pearlman, P. Halpin, D. Dunn, A. Benson, C.S. Martin, L.V. Weatherdon, W. Appeltans, P. Provoost, E. Klein, C.R. KELBLE, R.J. Miller, F.P. Chavez, K. Iken, S. Chiba, D. Obura, L.M. Navarro, H.M. Pereira, V. Allain, S. Batten, L. Benedetti-Cecchi, J.E. Duffy, R.M. Kudela, L.-M. Rebelo, Y. Shin, and G. Geller. Advancing marine biological observations and data requirements of the complementary essential ocean variables (EOVs) and essential biodiversity variables (EBVs) frameworks. *Frontiers in Marine Science*, 5:211 (doi:10.3389/fmars.2018.00211) (2018).

Munsell, E.B., F. Zhang, S.A. Braun, J.A. SIPPEL, and A.C. Didlake. The inner-core temperature structure of Hurricane Edouard (2014): Observations and ensemble variability. *Monthly Weather Review*, 146(1):135-155 (doi:10.1175/MWR-D-17-0095.1) (2018).

Murphy, L.N., M. GOES, and A.C. Clement. The role of African dust in Atlantic climate during Heinrich events. *Paleoceanography*, 32(11):1291-1308 (doi:10.1002/2017PA003150) (2017).

NGUYEN, L.T., R.F. ROGERS, and P.D. REASOR. Thermodynamic and kinematic influences on precipitation symmetry in sheared tropical cyclones: Bertha and Cristobal (2014). *Monthly Weather Review*, 145(11):4423-4446 (doi:10.1175/MWR-D-17-0073.1) (2017).

Nystrom, R.G., F. Zhang, E.B. Munsell, S.A. Braun, J.A. SIPPEL, Y. Weng, and K. Emanuel. Predictability and dynamics of Hurricane Joaquin (2015) explored through convection-permitting ensemble sensitivity experiments. *Journal of the Atmospheric Sciences*, 75(2):401-424 (doi:10.1175/JAS-D-17-0137.1) (2018).

Olascoaga, M.J., P. Miron, C. Paris, P. Pérez-Brunius, R. Pérez-Portela, R.H. SMITH, and A. Vaz. Connectivity of Pulley Ridge with remote locations as inferred by satellite-tracked drifter trajectories. *Journal of Geophysical Research-Oceans*, 123(8):5742-5750 (doi:10.1029/2018JC014057) (2018).

Peevey, T.R., J.M. English, L. CUCURULL, H. Wang, and A.C. KREN. Improving winter storm forecasts with Observing System Simulation Experiment (OSSEs). Part 1: An idealized case study of three US storms. *Monthly Weather Review*, 146(5):1341-1366 (doi:10.1175/MWR-D-17-0160.1) (2018).

Perry, C.T., L. Alvarez-Filip, N.A.J. Graham, P.J. Mumby, S.K. Wilson, P.S. Kench, D.P. MANZELLO, K.M. Morgan, A.B.A. Slanen, D.P. Thompson, F. Januchowski-Hartley, S.G. Smithers, R.S. Steneck, R. CARLTON, E.N. Edinger, I.C. ENOCHS, N. Estrada-Saldivar, M.D.E. Haywood, G. KOLODZIEJ, G.N. Murphy, E. Perez-Cervantes, A. Suchley, L. VALENTINO, R. Boenish, M. Wilson, and C. Macdonald. Loss of coral reef growth capacity to track future increases in sea level. *Nature*, 558(7710):396-400 (doi:10.1038/s41586-018-0194-z) (2018).

PUTMAN, N.F., G.J. GONI, L.J. GRAMER, C. Hu, E.M. JOHNS, J. TRINANES, and M. Wang. Simulating transport pathways of pelagic *Sargassum* from the equatorial Atlantic into the Caribbean Sea. *Progress in Oceanography*, 165:205-214 (doi:10.1016/j.pocean.2018.06.009) (2018).

Reagan, J., T. Boyer, C. SCHMID, and R. Locarnini. Global oceans—Subsurface salinity. In *State of the Climate in 2017*, J. Blunden, D.S. Arndt, and G. Hartfield (eds.). *Bulletin of the American Meteorological Society*, 99(8):S79-S81 (doi:10.1175/2018BAMSStateoftheClimate.1) (2018).

Reverdin, G., H. Valdimarsson, G. Alory, D. Diverres, F. BRINGAS, G. GONI, L. Heilmann, L. Chafik, T. Szekely, and A.R. Friedman. North Atlantic subpolar gyre along predetermined ship tracks since 1993: A monthly data set of surface temperature, salinity, and density. *Earth System Science Data*, 10(3):1403-1415 (doi:10.5194/essd-10-1403-2018) (2018).

- Robbins, L.L., K.L. Daly, L. BARBERO, R. WANNINKHOF, R. He, H. Zong, J.T. Lisle, W.-J. Cai, and C.G. Smith. Spatial and temporal variability of pCO₂, carbon fluxes, and saturation state on the West Florida Shelf. *Journal of Geophysical Research-Oceans*, 123(9):6174-6188 (doi:10.1029/2018JC014195) (2018).
- ROGERS, R.F., K. Cheung, R.L. Elsberry, N. Kohno, M.-D. Leroux, and P. Otto. The World Meteorological Organization Fourth International Workshop on Tropical Cyclone Landfall Processes (IWTCLP-IV): A summary. *Tropical Cyclone Research and Review*, 7(2):77-84 (doi:10.6057/2018TCRR02.01) (2018).
- ROGERS, R.F., S. ABERSON, M.M. Bell, D.J. Cecil, J.D. Doyle, T.B. Kimberlain, J. Morgerman, L.K. Shay, and C. Velden. Rewriting the tropical record books: The extraordinary intensification of Hurricane Patricia (2015). *Bulletin of the American Meteorological Society*, 98(10):2091-2112 (doi:10.1175/BAMS-D-16-0039.1) (2017).
- RUDKO, M.V., I.V. Kamenkovich, M. Iskadarani, and A.J. Mariano. Zonally elongated transient flows: Phenomenology and sensitivity analysis. *Journal of Geophysical Research-Oceans*, 123(6):3982-4002 (doi:10.1029/2017JC01313) (2018).
- Russell, J.L., I. Kamenkovich, C. Bitz, R. Ferrari, S.T. Gille, P.J. Goodman, R. Hallberg, K. Johnson, K. Khazmutdinova, I. Marinov, M. Mazloff, S. Riser, J.L. Sarmiento, K. Speer, L.D. Talley, and R. WANNINKHOF. Metrics for the evaluation of the Southern Ocean in coupled climate models and earth system models. *Journal of Geophysical Research-Oceans*, 123(5):3120-3143 (doi:10.1002/2017JC013461) (2018).
- SCHMID, C., and S. MAJUMDER. Transport variability of the Brazil Current from observations and a data assimilation model. *Ocean Science*, 14(3):417-436 (doi:10.5194/os-14-417-2018) (2018).
- Semenza, J.C., J. TRINANES, W. Lohr, B. Sudre, M. Löfdahl, J. Martinez-Urtaza, G.L. Nichols, and J. Rocklöv. Environmental suitability of *Vibrio* infections in a warming climate: An early warning system. *Environmental Health Perspectives*, 125(10):107004-1–107004-12 (doi:10.1289/EHP2198) (2017).
- SERRANO, X.M., M.W. Miller, J.C. HENDEE, B.A. Jensen, J.Z. Gapayao, C. Pasparakis, M. Grosell, and A.C. Baker. Effects of thermal stress and nitrate enrichment on the larval performance of two Caribbean reef corals. *Coral Reefs*, 37(1):173-182 (doi:10.1007/s00338-017-1645-y) (2018).
- Smeed, D.A., S.A. Josey, C. Beaulieu, W.E. Johns, B.I. Moat, E. Frajka-Williams, D. Rayner, C.S. MEINEN, M.O. BARINGER, H.L. Bryden, and G.D. McCarthy. The North Atlantic Ocean is in a state of reduced overturning. *Geophysical Research Letters*, 45(3):1527-1533 (doi:10.1002/GL076350) (2018).
- Smith, T.M., P.H. York, B.R. Broitman, M. Thiel, G.C. Hays, E. van Sebille, N.F. PUTMAN, P.I. Macreadie, C.D.H. Sherman, and B. Sandel. Rare long-distance dispersal of a marine angiosperm across the Pacific Ocean. *Global Ecology and Biogeography*, 27(4):487-496 (doi:10.1111/geb.12713) (2018).
- Steward, J.L., J.E. Roman, A. Lamas Davina, and A. AKSOY. Parallel direct solution of the covariance-localized ensemble square root Kalman filter equations with matrix functions. *Monthly Weather Review*, 146(9):2819-2836 (doi:10.1175/MWR-D-18-0022.1) (2018).
- Szuts, Z.B., and C.S. MEINEN. Florida Current salinity and salinity transport: Mean and decadal changes. *Geophysical Research Letters*, 44(20):10,495-10,503 (doi:10.1002/2017GL074538) (2017).
- Tang, J., J.A. ZHANG, S.D. ABERSON, F.D. MARKS, and X. Lei. Multilevel tower observations of vertical eddy diffusivity and mixing length in the tropical cyclone boundary layer during landfalls. *Journal of the Atmospheric Sciences*, 75(9):3159-3168 (doi:10.1175/JAS-D-17-0353.1) (2018).

THOMPSON, L.R., J.G. Sanders, D. McDonald, A. Amir, J. Ladau, K.J. Locey, R.J. Prill, A. Tripathi, S.M. Gibbons, G. Ackermann, J.A. Navas-Molina, S. Janssen, E. Kopylova, Y. Vázquez-Baeza, A. Gonzalez, J.T. Morton, S. Mirarab, Z.Z. Xu, L. Jiang, M.F. Haroon, J. Kanbar, Q. Zhu, S.J. Song, T. Kosciolek, N.A. Bokulich, J. Lefler, C.J. Brislawn, G. Humphrey, S.M. Owens, J. Hampton-Marcell, D. Berg-Lyons, V. McKenzie, N. Fierer, J.A. Fuhrman, A. Clauset, R.L. Stevens, A. Shade, K.S. Pollard, K.D. GOODWIN, J.K. Jansson, J.A. Gilbert, R. Knight, and the Earth Microbiome Project Consortium. A communal catalogue reveals Earth's multiscale microbial diversity. *Nature*, 551(7681):457-463 (doi:10.1038/nature24621) (2017).

Tratt, D.M., J.A. Hackwell, B.L. Valant-Spaight, R.L. Walterscheid, L.J. Gelinas, J.H. Hecht, C.M. Swenson, C.P. Lampen, M.J. Alexander, L. Hoffman, D.S. Nolan, S.D. Miller, J.L. Hall, R. ATLAS, F.D. MARKS, and P.T. Partain. GHOST: A satellite mission concept for persistent monitoring of stratospheric gravity waves induced by severe storms. *Bulletin of the American Meteorological Society*, 99(9):1813-1828 (doi:10.1175/BAMS-D-17-0064.1) (2018).

Tyner, B., P. Zhu, J.A. ZHANG, S. GOPALAKRISHNAN, F. MARKS, and V. Tallapragada. A top-down pathway to secondary eyewall formation in simulated tropical cyclones. *Journal of Geophysical Research-Atmospheres*, 123(1):174-197 (doi:10.1002/2017JD027410) (2017).

Uusitalo, L., M.T. Tomczak, B. Muller-Karulis, I. Putnis, N. TRIFONOVA, and A. Tucker. Hidden variables in a dynamic Bayesian network identify ecosystem level change. *Ecological Informatics*, 45:9-15 (doi:10.1016/j.ecoinf.2018.03.003) (2018).

Valla, D., A.R. Piola, C.S. MEINEN, and E. Campos. Strong mixing and recirculation in the northwestern Argentine Basin. *Journal of Geophysical Research-Oceans*, 123(7):4624-4648 (doi:10.1029/2018JC013907) (2018).

Venugopal, T., M.M. Ali, M.A. Bourassa, Y. Zheng, G.J. GONI, G.R. FOLTZ, and M. Rajeevan. Statistical evidence for the role of southwestern Indian Ocean heat content in the Indian summer monsoon rainfall. *Scientific Reports*, 8:12092 (doi:10.1038/s41598-018-30552-0) (2018).

VOLKOV, D.L. Ocean warming. *AccessScience*, McGraw-Hill Education (doi:10.1036/1097-8542-463850), 7 pp. (2018).

Wadler, J.B., R.F. ROGERS, and P.D. REASOR. The relationship between spatial variations in the structure of convective bursts and tropical cyclone intensification as determined by airborne Doppler radar. *Monthly Weather Review*, 146(3):761-780 (doi:10.1175/MWR-D-17-0213.1) (2018).

WANG, C., X. Wang, R.H. Weisberg, and M.L. BLACK. Variability of tropical cyclone rapid intensification in the North Atlantic and its relationship with climate variations. *Climate Dynamics*, 49(11-12):3627-3645 (doi:10.1007/s00382-017-3537-9) (2017).

Wang, W., J.A. SIPPEL, S. Abarca, L. Zhu, B. Liu, Z. Zhang, A. Mehra, and V. Tallapragada. Improving NCEP HWRF simulations of surface wind and inflow angle in the eye area. *Weather and Forecasting*, 33(3):887-898 (doi:10.1175/WAF-D-17-0115.1) (2018).

Weatherhead, E.C., B.A. Wielicki, V. Ramaswamy, M. Abbott, T.P. Ackerman, R. ATLAS, G. Brasseur, L. Bruhwiler, A.J. Busalacchi, J.H. Butler, C.T.M. Clack, R. Cooke, L. CUCURULL, S.M. Davis, J.M. English, D.W. Fahey, S.S. Fine, J.K. Lazo, S. Liang, N.G. Loeb, E. Rignot, B. Soden, D. Stanitski, G. Stephens, B.D. Tapley, A.M. Thompson, K.E. Trenberth, and D. Wuebbles. Designing the climate observing system of the future. *Earth's Future*, 6(1):80-102 (doi:10.1002/2017EF000627) (2018).

Wick, G.A., T.F. Hock, P.J. Neiman, H. Vomel, M.L. BLACK, and J.R. Spackman. The NCAR-NOAA Global Hawk dropsonde system. *Journal of Atmospheric and Oceanic Technology*, 35(8):1585-1604 (doi:10.1175/JTECH-D-17-0225.1) (2018).

- Worsnop, R.P., G.H. Bryan, J.K. Lundquist, and J.A. ZHANG. Using large-eddy simulations to define spectral and coherence characteristics of the hurricane boundary layer for wind-energy applications. *Boundary-Layer Meteorology*, 165(1):55-86 (doi:10.1007/s10546-017-0266x) (2017).
- Xu, Y.-Y., D. PIERROT, and W.-J. Cai. Ocean carbonate system computation for anoxic waters using an updated CO₂SYS program. *Marine Chemistry*, 195:90-93 (doi:10.1016/marchem.2017.07.002) (2017).
- Xue, L., W.-J. Cai, T. Takahashi, L. Gao, R. WANNINKHOF, M. Wei, K. Li, L. Feng, and W. Yu. Climatic modulation of surface acidification rates through summertime wind forcing in the Southern Ocean. *Nature Communications*, 9:3240 (doi:10.1038/s41467-018-05443-7) (2018).
- Yasunaka, S., E. Siswanto, A. Olsen, M. Hoppema, E. Watanabe, A. Fransson, M. Chierici, A. Murata, S.K. Lauvset, R. WANNINKHOF, T. Takahashi, N. Kosugi, A.M. Omar, S. van Heuven and J.T. Mathis. Arctic Ocean CO₂ uptake: An improved multiyear estimate of the air-sea CO₂ flux incorporating chlorophyll *a* concentrations. *Biogeosciences*, 15(6):1643-1661 (doi:10.5194/bg-15-1643-2018) (2018).
- ZHANG, J.A., R. ATLAS, G.D. Emmitt, L. BUCCI, and K. RYAN. Airborne Doppler wind lidar observations of the tropical cyclone boundary layer. *Remote Sensing*, 10(6):825 (doi:10.3390/rs10060825) (2018).
- ZHANG, J.A., F.D. MARKS, J.A. SIPPEL, R.F. ROGERS, X. ZHANG, S.G. GOPALAKRISHNAN, Z. Zhang, and V. Tallapragada. Evaluating the impact of improvement in the horizontal diffusion parameterization on hurricane prediction in the operational Hurricane Weather Research and Forecast (HWRF) model. *Weather and Forecasting*, 33(1):317-329 (doi:10.1175/WAF-D-17-0097.1) (2018).
- ZHANG, J.-Z., and N.T. Lanning. Ascorbic acid as a reductant for extraction of iron-bound phosphorus in soil samples: A method comparison study. *Communications in Soil Science and Plant Analysis*, 49(17):2155-2161 (doi:10.1080/00103624.2018.1499751) (2018).
- ZHANG, J.-Z., M.O. BARINGER, C.J. FISCHER, and J.A. HOOPER. An estimate of diapycnal nutrient fluxes to the euphotic zone in the Florida Straits. *Scientific Reports*, 7:16098 (doi:10.1038/s41598-017-15853-0) (2017).
- Zou, Z., D. Zhao, J.A. ZHANG, S. Li, Y. Cheng, H. Lv, and X. Ma. The influence of swell on the atmospheric boundary layer under nonneutral conditions. *Journal of Physical Oceanography*, 48(4):925-936 (doi:10.1175/JPO-D-17-0195.1) (2018).

FY-2019

- AGUILAR, C., J.-B. Raina, S. Foret, D.C. Hayward, B. Lapeyre, D.G. Bourne, and D.J. Miller. Transcriptomic analysis reveals protein homeostasis breakdown in the coral *Acropora millepora* during hypo-saline stress. *BMC Genomics*, 20(1):148 (doi:10.1186/s12864-019-5527-2) (2019).
- Ahren, K., M.A. Bourassa, R.E. Hart, J.A. ZHANG, and R.F. ROGERS. Observed kinematic and thermodynamic structure in the hurricane boundary layer during intensity change. *Monthly Weather Review*, 147(8):2765-2785 2019 (doi:10.1175/MWR-D-18-0380.1) (2019).
- Androulidakis, Y., V. Kourafalou, M. LE HENAFF, H. Kang, T. Sutton, S. Chen, C. Hu, and N. Ntaganou. Offshore spreading of Mississippi waters: Pathways and vertical structure under eddy influence. *Journal of Geophysical Research-Oceans*, 124(8):5952-5978 (doi:10.1029/2018JC014661) (2019).
- Anthes, R.A., M.W. Maier, S. Ackerman, R. ATLAS, L.W. Callahan, G.J. Dittberner, R. Edwing, P.G. Emch, M. Ford, W.B. Gail, M. Goldberg, S. Goodman, C. Kummerow, T. Onsager, K. Schrab, C. Velden, T. von der Haar, and J.G. Yoe. Developing priority observational requirements from space using multi-attribute utility theory. *Bulletin of the American Meteorological Society*, 100(9):1753-1793 (doi:10.1175/BAMS-D-18-0180.1) (2019).
- Asaad, I., C.J. Lundquist, M.V. Erdmann, R. VAN HOIDONK, and M.J. Costello. Designating spatial priorities for marine biodiversity conservation in the Coral Triangle. *Frontiers in Marine Science*, 5:400 (doi:10.3389/fmars.2018.00400) (2018).
- Banos, I.H., L.F. Sapucci, L. CUCURULL, C.F. Bastarz, and B.B. Silveira. Assimilation of GPSRO bending angle profiles into the Brazilian Global Atmospheric Model. *Remote Sensing*, 11(3):256 (doi:10.3390/rs11020256) (2019).
- Bashmachnikov, I., T. Belonenko, P. Kuibin, D. VOLKOV, and V. Foux. Pattern of vertical velocity in the Lofoten vortex (the Norwegian Sea). *Ocean Dynamics*, 68(12):1711-1725 (doi:10.1007/s10236-018-1213-1) (2018).
- Bell, G.D., E.S. Blake, C.W. Landsea, H. Wang, S.B. GOLDENBERG, and R.J. Pasch. Tropical cyclones: Atlantic basin. In *State of the Climate in 2018*, J. Blunden and D.S. Arndt (eds.) *Bulletin of the American Meteorological Society*, 100(9):S113-S119 (doi:10.1175/2019BAMSSStateoftheClimate.1) (2019).
- Balachandran, S., P.S.C. Rao, and F.D. MARKS. A conceptual framework for the scale-specific stochastic modeling of transitions in tropical cyclone intensities. *Earth and Space Science*, 6(6):972-981 (doi:10.1029/2019EA000585) (2019).
- Balachandran, S., Z.S. Haddad, S.M. Hristova-Veleva, and F.D. MARKS. The relative importance of factors influencing tropical cyclone rapid intensity changes. *Geophysical Research Letters*, 46(4):2282-2292 (doi:10.1029/2018GL079997) (2019).
- Balachandran, S., R. Nadimpalli, K.K. Osuri, F.D. MARKS, S. GOPALAKRISHNAN, S. Subramanian, U.C. Mohanty, and D. Niyogi. On the processes influencing rapid intensity changes of tropical cyclones over the Bay of Bengal. *Scientific Reports*, 9:3382 (doi:10.1038/s41598-019-40332-z) (2019).
- Blackwell, W.J., S. Braun, R. Bennartz, C. Velden, M. DeMaria, R. ATLAS, J. DUNION, F. MARKS, R. ROGERS, B. ANNANE, and R.V. Leslie. An overview of the TROPICS NASA Earth Venture mission. *Quarterly Journal of the Royal Meteorological Society*, 141(S1):16-26 (doi:10.1002/qj.3290) (2018).

Bolyen, E., J.-R. Rideout, M.R. Dillon, N.A. Bokulich, C.C. Abnet, G.A. Al-Ghalith, H. Alexander, E.J. Alm, M. Arumugam, F. Asnicar, Y. Bai, J.E. Bisanz, K. Bittinger, A. Brejnrod, C.J. Brislawn, C.T. Brown, B.J. Callahan, A.M. Caraballo-Rodríguez, J. Chase, E.K. Cope, R. Da Silva, C. Diener, P.C. Dorrestein, G.M. Douglas, D.M. Durall, C. Duvallet, C.F. Edwardson, M. Ernst, M. Estaki, J. Fouquier, J.M. Gauglitz, S.M. Gibbons, D.L. Gibson, A. Gonzalez, K. Gorlick, J. Guo, B. Hillmann, S. Holmes, H. Holste, C. Huttenhower, G.A. Hutley, S. Janssen, A.K. Jarmusch, L. Jiang, B.D. Kaehler, K.B. Kang, C.R. Keefe, P. Keim, S.T. Kelley, D. Knights, I. Koester, T. Kosciolek, J. Kreps, M.G.I. Langille, J. Lee, R. Ley, Y.-X. Liu, E. Loftfield, C. Lozupone, M. Maher, C. Marotz, B.D. Martin, D. McDonald, L.J. McIver, A.V. Melnik, J.L. Metcalf, S.C. Morgan, J.T. Morton, A.T. Naimey, J.A. Navas-Molina, L.F. Nothias, S.B. Orchanian, T. Pearson, S.L. Peoples, D. Petras, M.L. Preuss, E. Pruesse, L.B. Rasmussen, A. Rivers, M.S. Robeson, P. Rosenthal, N. Segata, M. Shaffer, A. Shiffer, R. Sinha, S.J. Song, J.R. Spear, A.D. Swafford, L.R. THOMPSON, P.J. Torres, P. Trinh, A. Tripathi, P.J. Turnbaugh, S. Ul-Hasan, J.J. van der Hooft, F. Vargas, Y. Vázquez-Baeza, E. Vogtmann, M. von Hippel, W. Walters, Y. Wan, M. Wang, J. Warren, K.C. Weber, C.H.D. Williamson, A.D. Willis, Z.Z. Xu, J.R. Zaneveld, Y. Zhang, Q. Zhu, R. Knight, J.G. Caporaso. Reproducible, interactive, scalable and extensible microbiome data science using QIIME 2. *Nature Biotechnology*, 37(8):852-857 (doi:10.1038/s41587-019-0209-9) (2019).

Boukabara, S.-A., K. Ide, Y. Zhou, N. Shahroudi, R.N. HOFFMAN, K. Garrett, V. Krishna Kumar, T. Zhu, and R. ATLAS. Community global Observing System Simulation Experiment (OSSE) package (CGOP): Assessment and validation of the OSSE system using an OSSE-OSE intercomparison of summary assessment metrics. *Journal of Atmospheric and Oceanic Technology*, 35(10):2061-2078 (doi:10.1175/JTECH-D-18-0061.1) (2018).

Bourassa, M.A., T. Meissner, I. Cerovecki, P.S. Chang, X. Dong, G. De Chiara, C. Donlon, D. Dukhovskoy, J. Elya, A. Fore, M.R. Fewings, R.C. Foster, S.T. Gille, B.K. Haus, S. Hristova-Veleva, H.M. HOLBACH, Z. Jelenak, J.A. Knaff, S.A. Kranz, A. Manaster, M. Mazloff, C. Mears, A. Mouche, M. Portabella, N. Reul, L. Ricciardulli, E. Rodriguez, C. Sampson, D. Solis, A. Stoffelen, M.R. Stukel, B. Styles, D. Weissman, and F. Wentz. Remotely sensed winds and wind stresses for marine forecasting and ocean modeling. *Frontiers in Marine Science*, 6:443 (doi:10.3389/fmars.2019.00443) (2019).

Bourles, B., M. Araujo, M.J. McPhaden, P. Brandt, G.R. FOLTZ, R. LUMPKIN, H. Giordani, F. Hernandez, N. Lefevre, P. Nobre, E. Campos, R. Saravanan, J. Trotte-Duha, M. Dengler, J. Hahn, R. Hummels, J.F. Lubbecke, M. Rouault, L. Cotrim, A. Sutton, M. Jochum, and R.C. PEREZ. PIRATA: A sustained observing system for tropical Atlantic climate research and forecasting. *Earth and Space Science*, 6(4):577-616 (doi:10.1029/2018EA000428) (2019).

BUCCI, L.R., C. O'Handley, G.D. Emmitt, J.A. ZHANG, K. RYAN, and R. ATLAS. Validation of an airborne Doppler wind lidar in tropical cyclones. *Sensors*, 18(12):4288 (doi:10.3390/s18124288) (2018).

Cannizzaro, J.P., B.B. Barnes, C. Hu, A.A. Corcoran, K.A. Hubbard, E. Muhlbach, W.C. Sharp, L.E. Brand, and C.R. KELBLE. Remote detection of cyanobacteria blooms in an optically shallow subtropical lagoonal estuary using MODIS data. *Remote Sensing of Environment*, 231:111227 (doi:10.1016/j.rse.2019.111227) (2019).

Canonico, G., P.L. Buttigieg, E. Montes, F.E. Muller-Karger, C. Stepien, D. Wright, A. Benson, B. Helmuth, M. Costello, I. Sousa-Pinto, H. Saeedi, J. Newton, W. Appeltans, N. Bednarsek, L. Bedrossy, B.D. Best, A. Brandt, K.D. GOODWIN, K. Iken, A.C. Marques, P. Miloslavich, M. Ostrowski, W. Turner, E.P. Achterberg, T. Barry, O. Defeo, G. Bigatti, L.-A. Henry, B. Ramiro-Sanchez, P. Duran, T. Morato, J.M. Roberts, A. Garcia-Alegre, M.S. Cuadrado, and B. Murton. Global observational needs and resources for marine biodiversity. *Frontiers in Marine Science*, 6:367 (doi:10.3389/fmars.2019.00367) (2019).

Carter, B.R., N.L. Williams, W. Evans, A. Fassbender, L. BARBERO, C. Hauri, R.A. Feely, and A.J. Sutton. Time of detection as a metric for prioritizing between climate observation quality, frequency, and duration. *Geophysical Research Letters*, 46(7):3853-3861 (doi:10.1029/2018GL080773) (2019).

Carter, B.R., R.A. Feely, R. WANNINKHOF, S. Kouketsu, R.E. Sonnerup, P.C. Pardo, C.L. Sabine, G.C. Johnson, B.M. Sloyan, A. Murata, S. Mecking, B. Tilbrook, K. Speer, L.D. Talley, F.J. Millero, S.E. Wijffels, A.M. Macdonald, N. Gruber, and J.L. Bullister. Pacific anthropogenic carbon between 1991 and 2017. *Global Biogeochemical Cycles*, 33(5):597-617 (doi:10.1029/2018GB006154) (2019).

Centurioni, L.R., J. Turton, R. LUMPKIN, L. Braasch, G. Brassington, Y. Chao, E. Charpentier, Z. Chen, G. Corlett, K. Dohan, C. Donlon, C. Gallage, V. Hormann, A. Ignatov, B. Ingleby, R. Jensen, B.A. Kelly-Gerreyn, I.M. Koszalka, X. Lin, E. Lindstrom, N. Maximenko, C.J. Merchant, P. Minnett, A. O'Carroll, T. Palusziewicz, P. Poli, P.-M. Poulain, G. Reverdin, X. Sun, V. Swail, S. Thurston, L. Wu, L. Yu, B. Wang, and D. Zhang. Global in situ observations of essential climate and ocean variables at the air-sea interface. *Frontiers in Marine Science*, 6:419 (doi:10.3389/fmars.2019.00419) (2019).

Chen, S., C. Hu, B.B. Barnes, R. WANNINKHOF, W.-J. Cai, L. BARBERO, and D. PIERROT. A machine learning approach to estimate surface ocean $p\text{CO}_2$ from satellite measurements. *Remote Sensing of Environment*, 228:203-226 (doi:10.1016/j.rse.2019-04.019) (2019).

CHEN, X., J.A. ZHANG, and F.D. MARKS. A thermodynamic pathway leading to rapid intensification of tropical cyclones in shear. *Geophysical Research Letters*, 46(15):9241-9251 (doi:10.1029/2019GL083667) (2019).

CUCURULL, L., R. ATLAS, R. Li, M.J. Mueller, and R.N. HOFFMAN. An observing system simulation experiment with a constellation of radio occultation satellites. *Monthly Weather Review*, 146(12):4247-4259 (doi:10.1175/MWR-D-18-0089.1) (2018).

Cui, Z., Z. Pu, V. Tallapragada, R. ATLAS, and C.S. Ruf. A preliminary impact study of CYGNSS ocean surface wind speeds on numerical simulations of hurricanes. *Geophysical Research Letters*, 46(5):2984-2992 (doi:10.1029/2019GL082236) (2019).

deYoung, B., M. Visbeck, M.C. de Araujo Filho, M.O. BARINGER, C.-A. Black, E. Buch, G. Canonico, P. Coelho, J.T. Duha, M. Edwards, A.S. Fischer, J.-S. Fritz, S. Ketelhake, J.H. Muelbert, P. Monteiro, G. Nolan, E. O'Rourke, M. Ott, P.Y. Le Traon, S. Pouliquen, I. Sousa-Pinto, T. Tanhua, F.V. Velho, and Z. Willis. An integrated all-Atlantic Ocean observing system in 2030. *Frontiers in Marine Science*, 6:428 (doi:10.3389/fmars.2019.00428) (2019).

d'Hotman, J.S., N. Malan, C. Collins, M. de Vos, R. LUMPKIN, T. Morris, and J. Hermes. The use of a jet reference frame to analyze drifter trajectories in the Agulhas Current. *Journal of Geophysical Research-Oceans*, 124(6):4238-4247 (doi:10.1029/2018JC014850) (2019).

DOMINGUES, R.M., W.E. Johns, and C.S. MEINEN. Mechanisms of eddy-driven variability of the Florida Current. *Journal of Physical Oceanography*, 49(5):1319-1338 (doi:10.1175/JPO-D-18-0192.1) (2019).

DOMINGUES, R., G. GONI, M. BARINGER, and D. VOLKOV. What caused the accelerated sea level changes along the United States East Coast during 2010-2015? *Geophysical Research Letters*, 45(24):13,367-13,376 (doi:10.1029/2018GL081183) (2018).

DOMINGUES, R., G.J. GONI, J.A. Knaff, I.-I. Lin, and F. BRINGAS. Tropical cyclones: Tropical cyclone heat potential. In *State of the Climate in 2018*, J. Blunden and D.S. Arndt (eds.) *Bulletin of the American Meteorological Society*, 100(9):S133-S135 (doi:10.1175/2019BAMSStateoftheClimate.1) (2019).

DOMINGUES, R., A. Kuwano-Yoshida, P. Chardon-Maldonado, R.E. Todd, G. HALLIWELL, H.-S. Kim, I.-I. Lin, K. Sato, T. Narazaki, L.K. Shay, T. Miles, S. Glenn, J.A. ZHANG, S.R. Jayne, L. Centurioni, M. LE HENAUFF, G. FOLTZ, F. BRINGAS, M.M. Ali, S.F. DiMarco, S. Hosoda, T. Fukuoka, B. LaCour, A. Mehra, E.R. Sanabria, J.R. Gyakum, J. Dong, J.A. Knaff, and G. GONI. Ocean observations in support of studies and forecasts of tropical and extratropical cyclones. *Frontiers in Marine Science*, 6:446 (doi:10.3389/fmars.2019.00446) (2019).

DONG, S., M.O. BARINGER, and G.J. GONI. Slow down of the Gulf Stream during 1993-2016. *Scientific Reports*, 9:6672 (doi:10.1038/s41598-019-42829-8) (2019).

Dougherty, E.M., J. Molinari, R.F. ROGERS, J.A. ZHANG, and J.P. Kossin. Hurricane Bonnie (1998): Maintaining intensity during high vertical wind shear and an eyewall replacement cycle. *Monthly Weather Review*, 146(10):3383-3399 (doi:10.1175/MWR-D-18-0030.1) (2018).

Duffy, J.E., L.Benedetti-Cecchi, J.A. TRINANES, F.E. Muller-Karger, R. Ambo-Rappe, C. Bostrom, A.H. Buschmann, J. Byrnes, R.G. Coles, J. Creed, L.C. Cullen-Unsworth, G. Diaz-Pulido, C.M. Duarte, G.J. Edgar, M. Fortes, G. GONI, C. Hu, X. Huang, C.L. Hurd, C. Johnson, B. Konar, D. Krause-Jensen, K. Krumhansl, P. Macreadie, H. Marsh, L.J. McKenzie, N. Mieszkowska, P. Miloslavich, E. Montes, M. Nakaoka, K.M. Norderhaug, L.M. Nordlund, R.J. Orth, A. Prathee, N.F. Putman, J. Samper-Villarreal, E.A. Serrao, F. Short, I. Sousa Pinto P. Steinberg, R. Stuart-Smith, R.K.F. Unsworth, M. van Keulen, B.I. Van Tussenbroek, M. Wang, M. Waycott, L.V. Weatherdon, T. Wernberg, and S.M. Yaakub. Toward a coordinated global observing system for seagrasses and marine macroalgae. *Frontiers in Marine Science*, 6:317 (doi:10.3389/fmars.2019.00317) (2019).

DUNION, J.P., C.D. Thorncroft, and D.S. Nolan. Tropical cyclone diurnal cycle signals in a hurricane nature run. *Monthly Weather Review*, 147(1):363-388 (doi:10.1175/MWR-D-18-0130.1) (2019).

Edmunds. P.J., T.C. Adam, A.C. Baker, S.S. Doo, P.W. Glynn, D.P. MANZELLO, N.J. Silbiger, T.B. Smith, and P. Fong. Why more comparative approaches are required in time-series analyses of coral reef ecosystems. *Marine Ecology Progress Series*, 608:297-306 (doi:10.3354/meps12805) (2019).

ENOCHS, I.C., D.P. MANZELLO, P.R. JONES, S.J. STAMATES, and T.P. CARSEY. Seasonal carbonate chemistry dynamics on southeast Florida coral reefs: Localized acidification hotspots from navigational inlets. *Frontiers in Marine Science*, 6:160 (doi:10.3389/fmars.2019.00160) (2019).

Fan, K., X. Wang, G.R. FOLTZ, and K. Balaguru. Meridional oscillation in genesis location of tropical cyclones in the postmonsoon Bay of Bengal. *Climate Dynamics*, 53(3-4):2103-2118 (doi:10.1007/s00382-019-04794-1) (2019).

Feely, R.A., R. WANNINKHOF, B.R. Carter, P. Landschutze, A.J. Sutton, C. Cosca, and J.A. TRINANES. Global oceans: Global ocean carbon cycle. In *State of the Climate in 2018*, J. Blunden and D.S. Arndt (eds.) *Bulletin of the American Meteorological Society*, 100(9):S94-S99 (doi:10.1175/2019BAMSStateoftheClimate.1) (2019).

Fennel, K., S. Alin, L. BARBERO, W. Evans, T. Bourgeois, S. Cooley, J. Dunne, R.A. Feely, J.M. Hernandez-Ayon, X. Hu, S. Lohrenz, F. Muller-Karger, R. Najjar, L. Robbins, E. Shadwick, S. Siedlecki, N. Steiner, A. Sutton, D. Turk, P. Vlahos, and Z.A. Wang. Carbon cycling in the North American coastal ocean: A synthesis. *Biogeosciences*, 16(6):1281-1304 (doi:10.5194/bg-16-1281-2019) (2019).

Ferguson, A., C. Del Donno, E. Obeng-Gyasi, K. Mena, T.K. Altomare, R. Guerrero, M. GIDLEY, L. Montas, and H.M. Solo-Gabriele. Children exposure-related behavior patterns and risk perception associated with recreational beach use. *Environmental Research and Public Health*, 16(15):2783 (doi:10.3390/jerph16152783) (2019).

FOLTZ, G.R. Wind- and buoyancy-forced upper ocean. In *Encyclopedia of Ocean Sciences*, J.K. Cochran, H.J. Bokuniewicz, and P.L. Yager (eds.). Elsevier, 3rd edition, 1:113-121 (doi:10.1016/B978-0-12-409548-9.11336-3) (2019).

FOLTZ, G.R., P. Brandt, I. Richter, B. Rodriguez-Fonseca, F. Hernandez, M. Dengler, R.R. Rodrigues, J.O. Schmidt, L. Yu, N. Lefevre, L.C. Da Cunha, M.J. McPhaden, M.C. de Araujo Filho, J. Karstensen, J. Hahn, M. Martin-Rey, C.M. Patricola, P. Poli, P. Zuidema, R. Hummels, R.C. PEREZ, V. Hatje, J. Luebbecke, I. Polo, R. LUMPKIN, B. Bourles, F.E. Asuquo, P. Lehodey, A. Conchon, P. Chang, P. Dandin, C. SCHMID, A.J. Sutton, H. Giordani, Y. Xue, S. Illig, T. Losada, S. Grodsky, F. Gasparin, T. Lee, E. Mohino, P. Nobre, R. WANNINKHOF, N.S. Keenlyside, V. Garcon, E. Sanchez-Gomez, H.C. Nnamchi, M. Drevillon, A. Storto, E. Remy, A. Lazar, S. Speich, M. GOES, T. Dorrington, W.E. Johns, J.N. Moum, C. Robinson, C. Perruche, R.B. de Souza, A. Gaye, J. Lopez-Parages, P.-A. Monerie, M. Castellanos, N.U. Benson, M.N. Hounkonnou, J. Trotte Duha, R. Laxenaire, and N. Reul. The tropical Atlantic observing system. *Frontiers in Marine Science*, 6:206 (doi:10.3389/fmars.2019.00206) (2019).

Frajka-Williams, E., I.J. Ansorge, J. Baehr, H.L. Bryden, M.P. Chidichimo, S.A. Cunningham, G. Danabasoglu, S. DONG, K.A. Donohue, S. Elipot, N.P. Holliday, R. Hummels, L.C. Jackson, J. Karstensen, M. Lankhorst, I. Le Bras, M.S. Lozier, E.L. McDonagh, C.S. MEINEN, H. Mercier, B.I. Moat, R.C. PEREZ, C.G. Piecuch, M. Rhein, M. Srokosz, K.E. Trenberth, S. Bacon, G. Forget, G.J. GONI, P. Heimbach, D. Kieke, J. Koelling, T. Lamont, G. McCarthy, C. Mertens, U. Send, D.A. Smeed, M. Van den Berg, D. VOLKOV, and C. Wilson. Atlantic Meridional Overturning Circulation: Observed transports and variability. *Frontiers in Marine Science*, 6:260 (doi:10.3389/fmars.2019.00260) (2019).

Franzosa, E.A., L.J. McIver, G. Rahnavard, L.R. THOMPSON, M. Schirmer, G. Weingart, K. Schwarzberg-Lipson, R. Knight, J.G. Caporaso, N. Segata, and C. Huttenhower. Species-level functional profiling of metagenomes and metatranscriptomes. *Nature Methods*, 15(11):962-968 (doi:10.1038/s41592-018-0176-y) (2018).

Fujii, Y., E. Remy, H. Zuo, P.R. Oke, G. HALLIWELL, F. Gasparin, M. Benkiran, N. Loose, J. Cummings, J. Xie, Y. Xue, S. Masuda, G.C. Smith, M. Balmaseda, C. GERMINEAUD, D.J. Lea, G. Larnicol, L. Bertino, A. Bonaduce, P. Brasseur, C. Donlon, P. Heimbach, Y.-H. Kim, V. Kourafalou, P.Y. Le Traon, M. Martin, S. Paturi, B. Tranchant, and N. Usui. Observing system evaluation based on ocean data assimilation and prediction systems: Ongoing challenges and a future vision for designing/supporting ocean observational networks. *Frontiers in Marine Science*, 6:417 (doi:10.3389/fmars.2019.00417) (2019).

GOES, M., L.N. Murphy, and A.C. Clement. The stability of the AMOC during Heinrich events is not dependent on the AMOC strength in an Intermediate Complexity Earth System model ensemble. *Paleoceanography and Paleoclimatology*, 34(8):1359-1374 (doi:10.1029/2019PA003580) (2019).

GOES, M., M. Cirano, M.M. Mata, and S. MAJUMDER. Long-term monitoring of the Brazil Current transport at 22°S from XBT and altimetry data: Seasonal, interannual and extreme variability. *Journal of Geophysical Research-Oceans*, 124(6):3645-3663 (doi:10.1029/2018JC014809) (2019).

GOMEZ, F.A., S.-K. LEE, F.J. Hernandez, L.M. Chiaverano, F.E. Muller-Karger, Y. Liu, and J.T. Lamkin. ENSO-induced co-variability of salinity, plankton biomass, and coastal currents in the northern Gulf of Mexico. *Scientific Reports*, 9:178 (doi:10.1038/s41598-018-36655-y) (2019).

GONI, G.J., and R. DOMINGUES. Tropical cyclones: Upper-ocean conditions in the Gulf of Mexico during Hurricane Michael. In *State of the Climate in 2018*, J. Blunden and D.S. Arndt (eds.) *Bulletin of the American Meteorological Society*, 100(9):S135-S137 (doi:10.1175/2019BAMSStateoftheClimate.1) (2019).

GONI, G.J., J. Sprintall, F. BRINGAS, L. Cheng, M. Cirano, S. DONG, R. DOMINGUES, M. GOES, H. LOPEZ, R. Morrow, U. RIVERO, T. Rossby, R.E. Todd, J. TRINANES, N. Zilberman, M. BARINGER, T. Boyer, R. Cowley, C.M. Domingues, K. Hutchinson, M. Kramp, M.M. Mata, F. Reseghetti, C. Sun, U. Bhaskar, and D. VOLKOV. More than 50 years of successful continuous temperature section measurements by the Global Expendable Bathymeterograph Network, its integrability, societal benefits, and future. *Frontiers in Marine Science*, 6:452 (doi:10.3389/fmars.2019.00452) (2019).

Gruber, N., D. Clement, B.R. Carter, R.A. Feely, S. van Heuven, M. Hoppema, M. Ishii, R.M. Key, A. Kozyr, S.K. Lauvset, C. Lo Monaco, J.T. Mathis, A. Murata, A. Olsen, F.F. Perez, C.L. Sabine, T. Tanhua, and R. WANNINKHOF. The oceanic sink for anthropogenic CO₂ from 1994 to 2007. *Science*, 363(6432):1193-1199 (doi:10.1126/science.aau5153) (2019).

Hermes, J.C., Y. Masumoto, L.M. Beal, M.K. Roxy, J. Vialard, M. Andres, H. Annamalai, S. Behera, N. D'Adamo, T. Doi, M. Feng, W. Han, N. Hardman-Mountford, H. Hendon, R. Hood, S. Kido, C. Lee, T. Lee, M. Lengaigne, J. Li, R. LUMPKIN, K.N. Navaneeth, B. Milligan, M.J. McPhaden, M. Ravichandran, T. Shinoda, A. Singh, B. Sloyan, P.G. Strutton, A.C. Subramanian, S. Thurston, T. Tozuka, C.C. Ummenhofer, A.S. Unnikrishnan, R. Venkatesan, D. Wang, J. Wiggert, L. Yu, and W. Yu. A sustained ocean observing system in the Indian Ocean for climate related scientific knowledge and societal needs. *Frontiers in Marine Science*, 6:355 (doi:10.3389/fmars.2019.00355) (2019).

HOFFMAN, R.N., V.K. Kumar, S.-A. Boukabara, K. Ide, F. Yang, and R. ATLAS. Progress in forecast skill at three leading global operational NWP centers during 2015-2017 as seen in Summary Assessment Metrics (SAMs). *Weather and Forecasting*, 33(6):1661-1679 (doi:10.1175/WAF-D-18-0117.1) (2018).

Hole, L.R., K.-F. Dagestad, J. Rohrs, C. Wettre, V.H. Kourafalou, Y. Androulidakis, H. Kang, M. LE HENAFF, and O. Garcia-Pineada. The DeepWater horizon oil slick: High resolution model simulations of river front effects, initialized and verified by satellite observations. *Journal of Marine Science and Engineering*, 7(10):329 (doi:10.3390/jmse.7100329) (2019).

Holstein, D.M., P. FLETCHER, S.H. Groves, and T.B. Smith. Ecosystem services of mesophotic coral ecosystems and a call for better accounting. In *Mesophotic Coral Ecosystems—Coral Reefs of the World* (Volume 12), Y. Loya, K. Puglise, and T. Bridge (eds.). Springer Publishing, 943-956 (doi:10.1007/978-3-319-92735-0_49) (2019).

Humphreys, A.F., J. Halfar, J.C. Ingle, D. MANZELLO, C.E. Reymond, H. Westphal, and B. Riegl. Shallow water benthic foraminifera of the Galapagos archipelago: Ecologically sensitive carbonate producers in an atypical tropical oceanographic setting. *Journal of Foraminiferal Research*, 49(1):48-65 (doi:10.2113/gsjfr.49.1.48) (2019).

Inoue, R., R.-C. Lien, J.N. Moum, R.C. PEREZ, and M.C. Gregg. Variations of equatorial shear, stratification, and turbulence within a tropical instability wave cycle. *Journal of Geophysical Research-Oceans*, 124(3):1858-1875 (doi:10.1029/2018JC014480) (2019).

Jin, S., X. Li, X. Yang, J.A. ZHANG, and D. Shen. Identification of tropical cyclone centers in SAR imagery based on template matching and particle swarm optimization algorithms. *IEEE Transactions on Geoscience and Remote Sensing*, 57(1):598-608 (doi:10.1109/TGRS.2018.2863259) (2019).

Johnson, G.C., J. Reagan, J.M. Lyman, T. Boyer, C. SCHMID, and R. Locarnini. Global oceans: Salinity. In *State of the Climate in 2018*, J. Blunden and D.S. Arndt (eds.) *Bulletin of the American Meteorological Society*, 100(9):S77-S80 (doi:10.1175/2019BAMSSStateoftheClimate.1) (2019).

Karnauskas, M., R.J. Allee, J.K. Craig, M. Jepson, C.R. KELBLE, M. Kilgour, R.D. Methot, and S.D. Regan. Effective science-based fishery management is good for Gulf of Mexico's "bottom line" – but evolving challenges remain. *Fisheries*, 44(5):239-242 (doi:10.1002/fsh.10216) (2019).

KELBLE, C., M. Karnauskas, K. Hubbard, G. GONI, and C. Streeter. 2018 Florida red tide bloom. In *State of the Climate in 2018*, J. Blunden and D.S. Arndt (eds.) *Bulletin of the American Meteorological Society*, 100(9):S88-S89 (doi:10.1175/2019BAMSSStateoftheClimate.1) (2019).

- KERSALÉ, M., R.C. PEREZ, S. Speich, C.S. MEINEN, T. Lamont, M. LE HÉNAFF, M.A. van den Berg, S. MAJUMDER, I.J. Ansorge, S. DONG, C. SCHMID, T. Terre, and S.L. GARZOLI. Shallow and deep eastern boundary currents in the South Atlantic at 34.5°S: Mean structure and variability. *Journal of Geophysical Research-Oceans*, 124(3):1634-1659 (doi:10.1029/2018JC014554) (2019).
- KLOTZ, B.W., and D.S. Nolan. SFMR surface wind undersampling over the tropical cyclone lifecycle. *Monthly Weather Review*, 147(1):247-268 (doi:10.1175/MWR-D-18-0296.1) (2019).
- KREN, A.C., L. CUCURULL, and H. Wang. Impact of UAS Global Hawk dropsonde data on tropical and extratropical cyclone forecasts in 2016. *Weather and Forecasting*, 33(5):1121-1141 (doi:10.1175/WAF-D-18-0029.1) (2018).
- Langdon, C., R. Albright, A.C. Baker, and P.R. JONES. Two threatened Caribbean species having contrasting responses to combined temperature and acidification stress. *Limnology and Oceanography*, 63(6):2450-2464 (doi:10.1002/lo.10952) (2018).
- Lavrinienko, A., T. Mappes, E. Tukalenko, T.A. Mousseau, A.P. Møller, R. Knight, J.T. Morton, L.R. THOMPSON, and P.C. Watts. Environmental radiation alters the gut microbiome of the bank vole *Myodes glareolus*. *The ISME Journal*, 12(11):2801-2806 (doi:10.1038/s41396-018-0214-x) (2018).
- Le Quere, C., R.M. Andrew, P. Friedlingstein, S. Sitch, J. Hauck, J. Pongratz, P.A. Pickers, J.I. Korsbakken, G.P. Peters, J.G. Canadell, A. Arneth, V.K. Arora, L. BARBERO, A. Bastos, L. Bopp, F. Chevallier, L.P. Chini, P. Ciais, S.C. Doney, T. Gkritzalis, D.S. Goll, I. Harris, V. Haverd, F.M. Hoffman, M. Hoppema, R.A. Houghton, G. Hurt, T. Ilyina, A.K. Jain, T. Johannessen, C.D. Jones, E. Kato, R.F. Keeling, K.K. Goldewijk, P. Landschutzer, N. Lefevre, S. Lienert, Z. Liu, D. Lombardozzi, N. Metzl, D.R. Munro, J.E.M.S. Nabel, S.-I. Nakaoka, C. Neill, A. Olsen, T. Ono, P. Patra, A. Peregon, W. Peters, P. Peylin, B. Pfeil, D. PIERROT, B. Poulter, G. Rehder, L. Resplandy, E. Robertson, M. Rocher, C. Rodenbeck, U. Schuster, J. Schwinger, R. Seferian, I. Skjelvan, T. Steinhoff, A. Sutton, P.P. Tans, H. Tian, B. Tilbrook, F.N. Tubiello, I.T. van der Laan-Luijkx, G.R. van der Werf, N. Viovy, A.P. Walker, A.J. Wilshire, R. Wright, S. Zaehle, and B. Zheng. Global carbon budget 2018. *Earth System Science Data*, 10(4):2141-2194 (doi:10.5194/essd-10-2141-2018) (2018).
- Lee, C.M., S. Starkweather, H. Eicken, M.-L. Timmermans, J. Wilkinson, S. Sandven, D. Dukhovskoy, S. Gerland, J. Grebmeier, J.M. Intrieri, S.-H. Kang, M. McCammon, A.T. Nguyen, I. Polyakov, B. Rabe, H. Sagen, S. Seeyave, D. VOLKOV, A. Beszczynska-Moller, L. Chafik, M. Dzieciuch, G. GONI, T. Hamre, A.L. King, A. Olsen, R.P. Raj, T. Rossby, O. Skagseth, H. Soiland, and K. Sorenson. A framework for the development, design and implementation of a sustained Arctic Ocean observing system. *Frontiers in Marine Science*, 6:451 (doi:10.3389/fmars.2019.00451) (2019).
- LEE, S.-K., R. LUMPKIN, M.O. BARINGER, C.S. MEINEN, M. GOES, S. DONG, H. LOPEZ, and S.G. Yeager. Global meridional overturning circulation inferred from a data-constrained ocean and sea-ice model. *Geophysical Research Letters*, 46(3):1521-1530 (doi:10.1029/2018GL080940) (2019).
- Li, Z., J. Li, P. Wang, A. Lim, J. Li, T.J. Schmit, R. ATLAS, S.-A. Boukabara, and R. HOFFMAN. Value-added impact of geostationary hyperspectral infrared sounders on local severe storm forecasts—via a quick regional OSSE. *Advances in Atmospheric Sciences*, 35(10):1217-1230 (doi:10.1007/s00376-018-8036-3) (2018).
- Li, Z., J. Li, T.J. Schmit, P. Wang, A. Lim, J. Li, F.W. Nagle, W. Bai, J.A. Otkin, R. ATLAS, R.N. HOFFMAN, S.-A. Boukabara, T. Zhu, W.J. Blackwell, and T.S. Pagano. The alternative of CubeSat-based advanced infrared and microwave sounders for high impact weather forecasting. *Atmospheric and Oceanic Science Letters*, 12(2):80-90 (doi:10.1080/16742834.2019.1568816) (2019).
- LOPEZ, H., and B.P. Kirtman. ENSO influence over the Pacific North American sector: Uncertainty due to atmospheric internal variability. *Climate Dynamics*, 52(9-10):6149-6172 (doi:10.1007/s00382-018-4500-0) (2019).

LOPEZ, H., S.-K. LEE, S. DONG, G. GONI, B. Kirtman, R. ATLAS, and A. Kumar. East Asian monsoon as a modulator of U.S. Great Plains heat waves. *Journal of Geophysical Research-Atmospheres*, 124(12):6342-6358 (doi:10.1029/2018JD030151) (2019).

LUMPKIN, R. Global oceans: Introduction. In *State of the Climate in 2018*, J. Blunden and D.S. Arndt (eds.) *Bulletin of the American Meteorological Society*, 100(9):S69 (doi:10.1175/2019BAMSStateoftheClimate.1) (2019).

LUMPKIN, R., and L. Centurioni. Surface drifter observations in the Indian Ocean. In *IndOOS-2: A Road Map to Sustained Observations of the Indian Ocean for 2020-2030*, L. Beal, J. Vialard, and M. Roxy (eds.). International CLIVAR Project Office, 23-26 (2019).

LUMPKIN, R., G. GONI, and K. Dohan. Global oceans: Surface currents. In *State of the Climate in 2018*, J. Blunden and D.S. Arndt (eds.) *Bulletin of the American Meteorological Society*, 100(9):S89-S92 (doi:10.1175/2019BAMSStateoftheClimate.1) (2019).

MAJUMDER, S., M. GOES, P.S. Polito, R. LUMPKIN, C. SCHMID, and H. LOPEZ. Propagating modes of variability and their impact on the western boundary current in the South Atlantic. *Journal of Geophysical Research-Oceans*, 124(5):3168-3185 (doi:10.1029/2018JC014812) (2019).

MANZELLO, D.P., M.V. Matz, I.C. ENOCHS, L. VALENTINO, R.D. Carlton, G. KOLODZIEJ, X. SERRANO, E.K. Towle, and M. JANKULAK. Role of host genetics and heat-tolerant algal symbionts in sustaining populations of the endangered coral *Orbicella faveolata* in the Florida Keys with ocean warming. *Global Change Biology*, 25(3):1016-1031 (doi:10.1111/gcb.14545) (2019).

Martinez, J., M.M. Bell, R.F. ROGERS, and J.D. Doyle. Axisymmetric potential vorticity evolution of Hurricane Patricia (2015). *Journal of the Atmospheric Sciences*, 76(7):2043-2063 (doi:10.1175/JAS-D-18-0373.1) (2019).

Martino, C., J.T. Morton, C.A. Marotz, L.R. THOMPSON, A. Tripathi, and R. Knight. A novel sparse compositional technique reveals microbial perturbations. *mSystems*, 4(1):e00016-19 (doi:10.1128/mSystems.00016-19) (2019).

Maximenko, N., P. Corradi, K.L. Law, E. Van Sebille, S.P. Garaba, R.S. Lampitt, F. Galgani, V. Martinez-Vicente, L. Goddijn-Murphy, J.M. Veiga, R.C. Thompson, C. Maes, D. Moller, C.R. Loscher, A.M. Addamo, M.R. Lamson, L.R. Centurioni, N.R. Posth, R. LUMPKIN, M. Vinci, A.M. Martins, C.D. Pieper, A. Isobe, G. Hanke, M. Edwards, I.P. Chubarenko, E. Rodriguez, S. Aliani, M. Arias, G.P. Asner, A. Brosich, J.T. Carlton, Y. Chao, A.-M. Cook, A.B. Cundy, T.S. Galloway, A. Giorgetti, G.J. GONI, Y. Guichoux, L.E. Haram, B.D. Hardesty, N. Holdsworth, L. Lebreton, H.A. Leslie, I. Macadam-Somer, T. Mace, M. Manuel, R. Marsh, E. Martinez, D.J. Mayor, M. LeMoigne, M.E. Molina Jack, M.C. Mowlem, R.W. Obbard, K. Pabortsava, B. Robberson, A.-E. Rotaru, G.M. Ruiz, M.T. Spedicato, M. Thiel, A. Turra, and C. Wilcox. Towards the integrated marine debris observing system. *Frontiers in Marine Science*, 6:447 (doi:10.3389/fmars.2019.00447) (2019).

Mayer, D.A., J.A. ZHANG, and R.H. Weisberg. Surface layer turbulence parameters derived from 1-s wind observations on the West Florida Shelf. *Journal of Geophysical Research-Atmospheres*, 124(4):1992-2007 (doi:10.1029/2018JD029392) (2019).

MEINEN, C.S., W.E. Johns, B.I. Moat, R.H. SMITH, E.M. JOHNS, D. Rayner, E. Frajka-Williams, R.F. GARCIA, and S.L. GARZOLI. Structure and variability of the Antilles Current at 26.5°N. *Journal of Geophysical Research-Oceans*, 124(6):3700-3723 (doi:10.1029/2018JC014836) (2019).

Molinari, J., J.A. ZHANG, R.F. ROGERS, and D. Vollaro. Repeated eyewall replacement cycles in Hurricane Frances (2004). *Monthly Weather Review*, 147(6):2009-2022 (doi:10.1175/MWR-D-18-0345.1) (2019).

- Moltmann, T., J. Turton, H.-M. Zhang, G. Nolan, C. Gouldman, L. Griesbauer, Z. Willis, A. Muñiz Piniella, S. Barrell, E. Andersson, C. Gallage, E. Charpentier, M. Belbeoch, P. Poli, A. Rea, E.F. Burger, D.M. Legler, R. LUMPKIN, C. Meinig, K. O'Brien, K. Saha, A. Sutton, D. Zhang, and Y. Zhang. A Global Ocean Observing System (GOOS), delivered through enhanced collaboration across regions, communities, and new technologies. *Frontiers in Marine Science*, 6:291 (doi:10.3389/fmars.2019.00291) (2019).
- Obura, D.O., G. Aeby, N. AMORNTHAMMARONG, W. Appeltans, N. Bax, J. BISHOP, R.E. Brainard, S. Chan, P. Fletcher, T.A.C. Gordon, L. GRAMER, M. Gudka, J. Halas, J. HENDEE, G. Hodgson, D. Huang, M. JANKULAK, A. Jones, T. Kimura, J. Levy, P. Miloslavich, L. Ming Chou, F.E. Muller-Karger, K. Osuka, M. Samoilys, S.D. Simpson, K. Tun, and S. Wongbusarakum. Coral reef monitoring, reef assessment technologies, and ecosystem-based management. *Frontiers in Marine Science*, 6:580 (doi:10.3389/fmars.2019.0580) (2019).
- Olsen, A., N. Lange, R.M. Key, T. Tanhua, M. Alvarez, S. Becker, H.C. Bittig, B.R. Carter, L. Cotrim da Cunha, R.A. Feely, S. van Heuven, M. Hoppema, M. Ishii, E. Jeansson, S.D. Jones, S. Jutterstrom, M.K. Karlsen, A. Kozyr, S.K. Lauvset, C. Lo Monaco, A. Murata, F.F. Perez, B. Pfeil, C. Schirnick, R. Steinfeldt, T. Suzuki, M. Telszewski, B. Tilbrook, A. Velo, and R. WANNINKHOF. GLODAPv2.2019—An update of GLODAPv2. *Earth System Science Data*, 11(3):1437-1461 (doi:10.5194/essd-11-1437-2019) (2019).
- Otis, D.B., M. LE HÉNAFF, V.H. Kourafalou, L. McEachron, and F.E. Muller-Karger. Mississippi River and Campeche Bank (Gulf of Mexico) episodes of cross-shelf export of coastal waters observed with satellites. *Remote Sensing*, 11(6):723 (doi:10.3390/rs11060723) (2019).
- PEREZ, R.C., G.R. FOLTZ, R. LUMPKIN, and C. SCHMID. Direct measurements of upper ocean horizontal velocity and vertical shear in the tropical North Atlantic Ocean at 4°N, 23°W. *Journal of Geophysical Research-Oceans*, 124(6):4133-4151 (doi:10.1029/2019JC015064) (2019).
- POTERJOY, J., L. Wicker, and M. Buehner. Progress toward the application of a localized particle filter for numerical weather prediction. *Monthly Weather Review*, 147(4):1107-1126 (doi:10.1175/MWR-D-17-0344.1) (2019).
- Reed, J.K., S. Farrington, A. David, S. Harter, S. Pomponi, M.C. Diaz, J.D. Voss, K.D. Spring, A.C. Hine, V.H. Kourafalou, R.H. SMITH, A.C. Vas, C.B. Paris, and M.D. Hanisak. Pulley Ridge, Gulf of Mexico, USA. In *Mesophotic Coral Ecosystems—Coral Reefs of the World* (Volume 12), Y. Loya, K. Puglise, and T. Bridge (eds.). Springer Publishing, 57-69 (doi:10.1007/978-3-319-92735-0_4) (2019).
- Ren, Y., J.A. ZHANG, S.R. Guimond, and X. Wang. Hurricane boundary layer height relative to storm motion from GPS dropsonde composites. *Atmosphere*, 10(6):339 (doi:10.3390/atmos10060339) (2019).
- Reverdin, G., N. Metzl, S. Olafsdotir, V. Racape, T. Takahashi, M. Benetti, H. Valdimarsson, A. Benoit-Cattin, M. Danielsen, J. Fin, A. Naamar, D. PIERROT, K. SULLIVAN, F. BRINGAS, and G. GONI. SURATLANT: A 1993-2017 surface sampling in the central part of the North Atlantic subpolar gyre. *Earth System Science Data*, 10(4):1901-1924 (doi:10.5194/essd-10-1901-2018) (2018).
- Rodrigues, R.R., A.S. Tashetto, A. Sen Gupta, and G.R. FOLTZ. Common cause for severe droughts in South America and marine heatwaves in the South Atlantic. *Nature Geoscience*, 12(8):620-626 (doi:10.1038/s41561-019-0393-8) (2019).

Roemmich, D., M.H. Alford, H. Claustre, K. Johnson, B. King, J. Moum, P. Oke, W.B. Owens, S. Pouliquen, S. Purkey, M. Scanderbeg, T. Suga, S.E. Wijffels, N. Zilberman, D. Bakker, M. BARINGER, M. Belbeoch, H.C. Bittig, E. Boss, P. Calil, F. Carse, T. Carval, F. Chai, D.O. Conchubhair, F. d'Ortenzio, G. Dall'Olmo, D. Desbruyeres, K. Fennel, I. Fer, R. Ferrari, G. Forget, H. Freeland, T. Fujiki, M. Gehlen, B. Greenan, R. Hallberg, T. Hibiya, S. Hosoda, S. Jayne, M. Jochum, G.C. Johnson, K.-R. Kang, M. Kolodziejczyk, A. Koertzinger, P.-Y. Le Traon, Y.-D. Lenn, G. Maze, K.A. Mork, T. Morris, T. Nagai, J. Nash, A.N. Garabato, A. Olsen, R.R. Pattabhi, S. Prakash, S. Riser, C. Schmechtig, C. SCHMID, E. Shroyer, A. Sterl, P. Sutton, L. Talley, T. Tanhua, V. Thierry, S. Thomalla, J. Toole, A. Troisi, T.W. Trull, J.D. Turton, P.J. Velez-Belchi, W. Walczowski, H. Wang, R. WANNINKHOF, A.F. Waterhouse, S. Waterman, A. Watson, C. Wilson, A.P.S. Wong, J. Xu, and I. Yasuda. On the future of Argo: A global, full-depth, multi-disciplinary array. *Frontiers in Marine Science*, 6:439 (doi:10.3389/fmars.2019.00439) (2019).

ROSALES, S.M., and R. Vega Thurber. Draft genome sequence of phocine herpesvirus 1 isolated from the brain of a harbor seal. *Microbiology Resource Announcements*, 8(14):e00210-19 (doi:10.1128/MRA.00210-19) (2019).

ROSALES, S.M., C. SINIGALLIANO, M. GIDLEY, P.R. JONES, and L.J. GRAMER. Oceanographic habitat and the coral microbiomes of urban-impacted reefs. *PeerJ*, 7:e7552 (doi:10.7717/peerj.7552) (2019).

RYAN, K., L. BUCCI, J. DELGADO, R. ATLAS, and S. MURILLO. Impact of Gulfstream-IV dropsondes on tropical cyclone prediction in a regional OSSE system. *Monthly Weather Review*, 147(8):2961-2977 (doi:10.1175/MWR-D-18-0157.1) (2019).

Sawaya, N.A., A. Djurhuus, C.J. Closek, M. Hepner, E. Olesin, L. VISSER, C. KELBLE, K. Hubbard, and M. Breitbart. Assessing eukaryotic biodiversity in the Florida Keys National Marine Sanctuary through environmental DNA metabarcoding. *Ecology and Evolution*, 9(3):1029-1040 (doi:10.1002/ece3.4742) (2019).

Semba, M., R. LUMPKIN, I. Kimirei, Y. Shaghude, and N. Nyandwi. Seasonal and spatial variation of surface current in the Pemba Channel, Tanzania. *PLoS ONE*, 14(1):e0210303 (doi:10.1371/journal.pone.0210303) (2019).

Seo, E., M.-I. Lee, D. KIM, Y.-K. Lim, S.D. Schubert, and K.-M. Kim. Inter-annual variation of tropical cyclones simulated by GEOS-5 AGCM with modified convection scheme. *International Journal of Climatology*, 39(10):4041-4057 (doi:10.1002/joc.6058) (2019).

Sloyan, B.M., and R. WANNINKHOF. The Global Ocean Ship-Based Hydrographic Investigations Program (GO-SHIP). In *IndOOS-2: A Road Map to Sustained Observations of the Indian Ocean for 2020-2030*, L. Beal, J. Vialard, and M. Roxy (eds.). International CLIVAR Project Office.

Sloyan, B.M., R. WANNINKHOF, M. Kramp, G.C. Johnson, L.D. Talley, T. Tanhua, E. McDonagh, C. Cusack, E. O'Rourke, E. McGovern, K. Katsumata, S. Diggs, J. Hummon, M. Ishii, K. Azetsu-Scott, E. Boss, I. Ansorge, F.F. Perez, H. Mercier, M.J.M. Williams, L. Anderson, J.H. Lee, A. Murata, S. Kouketsu, E. Jeansson, M. Hoppema, and E. Campos. The Global Ocean Ship-based Hydrographic Investigations Program (GO-SHIP): A platform for integrated multidisciplinary ocean science. *Frontiers in Marine Science*, 6:445 (doi:10.3389/fmars.2019.00445) (2019).

Smith, A.W., B.K. Haus, and J.A. ZHANG. Stability and sea state as limiting conditions for TKE dissipation and dissipative heating. *Journal of the Atmospheric Sciences*, 76(3):689-706 (doi:10.1175/JAS-D-18-0142.1) (2019).

Smith, E.A., W. Sweet, M. Mitchell, R. DOMINGUES, C.P. Weaver, M. BARINGER, G. GONI, J. Haines, J.D. Loftis, J. Boon, and D. Malmquist. Treading water: Tools to help US coastal communities plan for sea level rise impacts. *Frontiers in Marine Science*, 6:300 (doi:10.3389/fmars.2019.00300) (2019).

Sun, S., C. Hu, O. Garcia-Pineda, V. Kourafalou, M. LE HENAFF, and Y. Androulidakis. Remote sensing assessment of oil spills near a damaged platform in the Gulf of Mexico. *Marine Pollution Bulletin*, 136:141-151 (doi:10.1016/j.marpolbul.2018.09.004) (2018).

- Sutton, A.J., R.A. Feely, S. Maenner-Jones, S. Musielwicz, J. Osborne, C. Dietrich, N. Monacci, J. Cross, R. Bott, A. Kozyr, A.J. Andersson, N.R. Bates, W.-J. Cai, M.F. Cronin, E.H. De Carlo, B. Hales, S.D. Howden, C.M. Lee, D.P. MANZELLO, M.J. McPhaden, M. Melendez, J.B. Mickett, J.A. Newton, S.E. Noakes, J.H. Noh, S.R. Olafsdottir, J.E. Salisbury, U. Send, T.W. Trull, D.C. Vandemark, and R.A. Weller. Autonomous seawater $p\text{CO}_2$ and pH time series from 40 surface buoys and the emergence of anthropogenic trends. *Earth System Science Data*, 11(1):421-439 (doi:10.5194/essd-11-421-2019) (2019).
- Szuts, Z.B., A.S. Bower, K.A. Donohue, J.B. Girton, J.M. Hummon, K. Katsumata, R. LUMPKIN, P.B. Ortner, H.E. Phillips, H.T. Rossby, L.K. Shay, C. Sun, and R.E. Todd. The scientific and societal uses of global measurements of subsurface velocity. *Frontiers in Marine Science*, 6:358 (doi:10.3389/fmars.2019.00358) (2019).
- Tang, J., J.A. ZHANG, C. Kieu, and F.D. MARKS. Sensitivity of hurricane intensity and structure to two types of planetary boundary layer parameterization schemes in idealized HWRF simulations. *Tropical Cyclone Research and Review*, 7(4):201-211 (doi:10.6057/2018TCRR04.01) (2018).
- Testor, P., B. deYoung, D.L. Rudnick, S. Glenn, D. Hayes, C.M. Lee, C. Pattiaratchi, K. Hill, E. Heslop, V. Turpin, P. Alenius, C. Barrera, J.A. Barth, N. Beard, G. Becu, A. Bosse, F. Bourrin, J.A. Brearley, Y. Chao, S. Chen, J. Chiggiato, L. Coppola, R. Crout, J. Cummings, B. Curry, R. Curry, R. Davis, K. Desai, S. DiMarco, C. Edwards, S. Fielding, I. Fer, E. Frajka-Williams, H. Gildor, G. GONI, D. Gutierrez, P. Haugan, D. Hebert, J. Heiderich, S. Henson, K. Heywood, P. Hogan, L. Houpert, S. Huh, M.E. Inall, M. Ishii, S. Ito, S. Itoh, S. Jan, J. Kaiser, J. Karstensen, B. Kirkpatrick, J. Klymak, J. Kohut, G. Krahmann, M. Krug, S. McClatchie, F. Marin, E. Mauri, A. Mehra, M.P. Meredith, T. Meunier, T. Miles, J.M. Morell, L. Mortier, S. Nicholson, J. O'Callaghan, D. O'Conchubhair, P. Oke, E. Pallas-Sanz, M. Palmer, J.-J. Park, L. Perivoliotis, P.-M. Poulaire, R. Perry, B. Queste, L. Rainville, E. Rehm, M. Roughan, N. Rome, T. Ross, S. Ruiz, G. Saba, A. Schaeffer, M. Schonau, K. Schroeder, Y. Shimizu, B.M. Sloyan, D. Smeed, D. Snowden, Y. Song, S. Swart, M. Tenreiro, A. Thompson, J. Tintore, R.E. Todd, C. Toro, H. Venables, T. Wagawa, S. Waterman, R.A. Watlington, and D. Wilson. OceanGliders: A component of the integrated GOOS. *Frontiers in Marine Science*, 6:422 (doi:10.3389/fmars.2019.00422) (2019).
- THOMPSON, L.R., M.F. Haroon, A.A. Shibli, M.J. Cahill, D.K. Ngugi, G.J. Williams, J.T. Morton, R. Knight, K.D. GOODWIN, and U. Stingl. Red Sea SAR11 and *Prochlorococcus* single-cell genomes reflect globally distributed pangenomes. *Applied and Environmental Microbiology*, 85(13):e00369-19 (doi:10.1128/AEM.00369-19) (2019).
- Todd, R.E., F.P. Chavez, S. Clayton, S.E. Cravatte, M. GOES, M. Graco, X. Lin, J. Sprintall, N.V. Zilberman, M. Archer, J. Aristegui, M. Balmaseda, J.M. Bane, M.O. BARINGER, J.A. Barth, L.M. Beal, P. Brandt, P.H.R. Calil, E. Campos, L.R. Centurioni, M.P. Chidichimo, M. Cirano, M.F. Cronin, E.N. Curchitser, R.E. Davis, M. Dengler, B. deYoung, S. DONG, R. Escribano, A.J. Fassbender, S.E. Fawcett, M. Feng, G.J. GONI, A.R. Gray, D. Gutierrez, D. Hebert, R. Hummels, S.-I. Ito, M. Krug, F. Lacan, L. Laurindo, A. Lazar, C.M. Lee, M. Lengaigne, N.M. Levine, J. Middleton, I. Montes, M. Muglia, T. Nagai, H.I. Palevsky, J.B. Palter, H.E. Phillips, A. Piola, A.J. Plueddemann, B. Qiu, R.R. Rodrigues, M. Roughan, D.L. Rudnick, R.R. Rykaczewski, M. Saraceno, H. Seim, A.S. Gupta, L. Shannon, B.M. Sloyan, A.J. Sutton, L. Thompson, A.K. van der Plas, D. VOLKOV, J. Wilkin, D. Zhang, and L. Zhang. Global perspectives on observing ocean boundary current systems. *Frontiers in Marine Science*, 6:423 (doi:10.3389/fmars.2019.00423) (2019).
- Tong, M., J.A. SIPPEL, V. Tallapragada, E. Liu, C. Kieu, I.-H. Kwon, W. Wang, Q. Liu, Y. Ling, and B. Zhang. Impact of assimilating aircraft reconnaissance observations on tropical cyclone initialization and prediction using operational HWRF and GSI ensemble-variational hybrid data assimilation. *Monthly Weather Review*, 146(12):4155-4177 (doi:10.1175/MWR-D-17-0380.1) (2018).
- TRIFONOVA, N., M. Karnauskas, and C. KELBLE. Predicting ecosystem components in the Gulf of Mexico and their responses to climate variability with a dynamic Bayesian network model. *PLoS ONE*, 14(1):e0209257 (doi:10.1371/journal.pone.0209257) (2019).
- Valla, D., A.R. Piola, C.S. MEINEN, and E. Campos. Abyssal transport variations in the southwest South Atlantic: First insights from a long-term observation array at 34.5°S. *Geophysical Research Letters*, 46(12):6699-6705 (doi:10.1029/2019GL082740) (2019).

- VOLKOV, D.L., M. BARINGER, D. Smeed, W. Johns, and F. Landerer. Teleconnection between the Atlantic Meridional Overturning Circulation and sea level in the Mediterranean Sea. *Journal of Climate*, 32(3):935-955 (doi:10.1175/JCLI-D-18-0474.1) (2019).
- VOLKOV, D.L., S. DONG, G.R. FOLTZ, G. GONI, and R. LUMPKIN. Observations of near-surface salinity and temperature structure with dual-sensor Lagrangian drifters during SPURS-2. *Oceanography*, 32(2):66-75 (doi:10.5670/oceanog.2019.214) (2019).
- VOLKOV, D.L., S.-K. LEE, R. DOMINGUES, H. Zhang, and M. GOES. Interannual sea level variability along the southeastern seaboard of the United States in relation to the gyre-scale heat divergence in the North Atlantic. *Geophysical Research Letters*, 46(13):7481-7490 (doi:10.1029/2019GL083596) (2019).
- Wadler, J.B., J.A. ZHANG, B. Jaimes, and L.K. Shay. Downdrafts and the evolution of boundary layer thermodynamics in Hurricane Earl (2010) before and during rapid intensification. *Monthly Weather Review*, 146(11):3545-3565 (doi:10.1175/MWR-D-18-0090.1) (2018).
- Wang, S., L. Guotu, M. Iskandarani, M. LE HENAFF, and O.M. Knio. Verifying and assessing the performance of the perturbation strategy in polynomial chaos ensemble forecasts of the circulation in the Gulf of Mexico. *Ocean Modelling*, 131:59-70 (doi:10.1016/j.ocemod.2018.09.002) (2018).
- WANNINKHOF, R., P.A. Pickers, A.M. Omar, A. Sutton, A. Murata, A. Olsen, B.B. Stephens, B. Tilbrook, D. Munro, D. PIERROT, G. Rehder, J.M. Santana-Casiano, J.D. Muller, J. TRINANES, K. Tedesco, K. O'Brien, K. Currie, L. BARBERO, M. Telszewski, M. Hoppema, M. Ishii, M. Gonzalez-Davila, N.R. Bates, N. Metzl, P. Suntharalingam, R.A. Feely, S.-I. Nakaoka, S.K. Lauvset, T. Takahashi, T. Steinhoff, and U. Schuster. A surface ocean CO₂ reference network, SOCONET, and associated marine boundary layer CO₂ measurements. *Frontiers in Marine Science*, 6:400 (doi:10.3389/fmars.2019.00400) (2019).
- Watts, N., M. Amann, N. Arnell, S. Ayeb-Karlsson, K. Belesova, H. Berry, T. Bouley, M. Boykoff, P. Byass, W. Cai, D. Campbell-Lendrum, J. Chambers, M. Daly, N. Dasandi, M. Davies, A. Depoux, P. Dominguez-Salas, P. Drummond, K.L. Ebi, P. Ekins, L. Fernandez Montoya, H. Fischer, L. Georgeson, D. Grace, H. Graham, I. Hamilton, S. Hartinger Pena, J. Hess, I. Kelman, G. Kiesewetter, T. Kjellstrom, D. Kniveton, B. Lemke, L. Liang, M. Lott, R. Lowe, M. Odhiambro Sewe, J. Martinez-Urtaza, M. Maslin, L. McAllister, S. Jankin Mikhaylov, J. Milner, M. Moradi-Lakeh, K. Morrissey, K. Murray, M. Nilsson, T. Neville, T. Oreszczyn, F. Owfi, O. Pearman, D. Pencheon, S. Pye, M. Rabbaniha, E. Robinson, J. Rocklov, O. Saxer, S. Schutte, J.C. Semenza, J. Shumake-Guillemot, R. Steinbach, M. Tabatabaei, J. Tomei, J. TRINANES, N. Wheeler, P. Wilkinson, P. Gong, H. Montgomery, and A. Costello. The 2018 report of the *Lancet* Countdown on health and climate change: Shaping the health of nations for centuries to come. *The Lancet*, 392(10163):2479-2514 (doi:10.1016/S0140-6736(18)32594-7) (2018).
- Yamahara, K.M., C.M. Preston, J. Birch, K. Walz, R. Marin, S. Jensen, D. Pargett, B. Roman, W. Ussler, Y. Zhang, J. Ryan, B. Hobson, B. Kieft, B. Raanan, K.D. GOODWIN, F.P. Chavez, and C. Scholin. In situ autonomous acquisition and preservation of marine environmental DNA using an autonomous underwater vehicle. *Frontiers in Marine Science*, 6:373 (doi:10.3389/fmars.2019.00373) (2019).
- ZHANG, J.A., and R.F. ROGERS. Effects of parameterized boundary layer structure on hurricane rapid intensification in shear. *Monthly Weather Review*, 147(3):853-871 (doi:10.1175/MWR-D-18-0010.1) (2019).
- Zou, Z., J. Song, P. Li, J. Huang, J.A. ZHANG, Z. Wan, and S. Li. Effects of swell waves on atmospheric boundary layer turbulence: A low wind field study. *Journal of Geophysical Research-Oceans*, 124(8):5671-5685 (doi:10.1029/2019JC015153) (2019).