

CARTHE Publications Quarterly Report

Quick Statistics

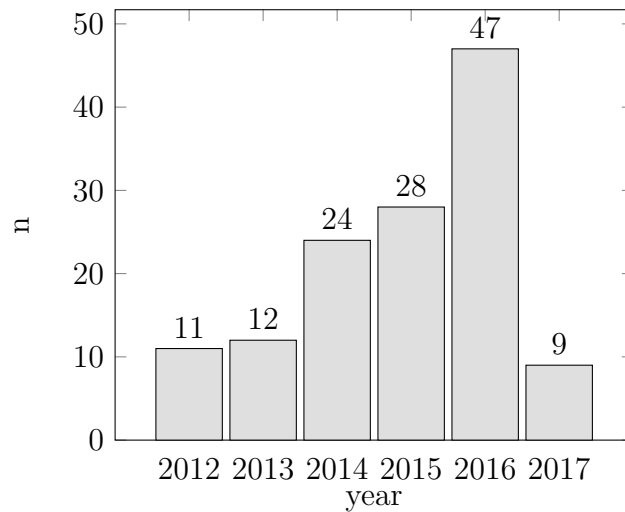
Total number of publications:	131
Total number of citations:	1175
Number of publications <i>In press</i> :	0
Number of publications <i>Accepted</i> :	3

Citation Indices

Citation indices	All	Since 2010
Citations	1175	1171
h-index	16	16
i10-index	28	28

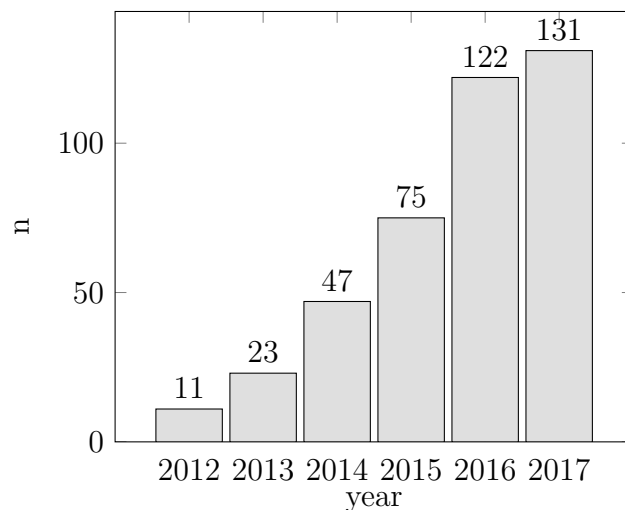
Publications by Year

Year	n
2012	11
2013	12
2014	24
2015	28
2016	47
2017	9
total	131



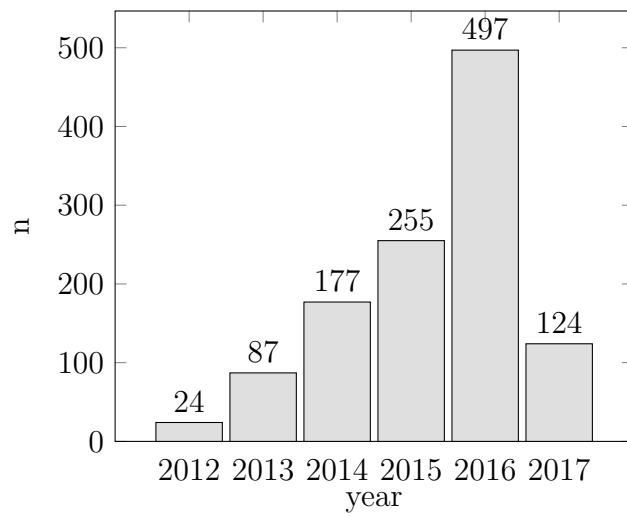
Publications by Year - Cumulative

Year	n
2012	11
2013	23
2014	47
2015	75
2016	122
2017	131
total	131



Citations by Year

Year	n
2012	24
2013	87
2014	177
2015	255
2016	497
2017	124
Total	1164



Publications by Journal

Number of different journals: 45

n	Journal
23	Journal of Geophysical Research
17	Ocean Modelling
8	Monthly Weather Review
8	Geophysical Research Letters
6	Journal of Atmospheric and Oceanic Technology
5	Journal of Physical Oceanography
4	Deep-Sea Research II
3	Nature.com/Scientific Reports
3	Journal of Fluid Mechanics
2	Water Resources Research
2	Transactions on Geoscience and Remote Sensing
2	Quarterly Journal of the Royal Meteorological Society
2	Proceedings of the National Academy of Sciences
2	Physics of Fluids
2	Physica D
2	Oceanography
2	Nonlinear Processes in Geophysics
2	Marine Pollution Bulletin
2	Environmental Science and Technology
2	Continental Shelf Research
2	Computational Geosciences
1	Polar Science
1	Physics Letters A
1	Optics Express
1	Ocean Science
1	Ocean Science Discussions
1	Ocean Dynamics
1	New Journal of Physics
1	Limnology and Oceanography
1	Journal of the Atmospheric Sciences
1	Journal of Turbulence
1	Journal of Computational Physics
1	Journal of Coastal Research
1	International Journal of Computational Fluid Dynamics
1	ISPRS Journal of Photogrammetry and Remote Sensing
1	IEEE Journal of Oceanic Engineering
1	Harmful Algae
1	Fluids
1	Estuarine, Coastal and Shelf Science
1	Eos, Transactions AGU
1	Environmental Fluid Mechanics
1	Computers and Fluids
1	Chaos
1	Canadian Journal of Remote Sensing
1	Annual Review of Marine Science

Publications by BibTeX Type

n	BibTeX Type
125	article
1	book
2	inbook
2	incollection
1	inproceedings

Most Prolific Authors

Total number of authors: 285

n	Author
36	Özgökmen
17	Haus
16	Jacobs
15	Chen
14	Poje
14	Olascoaga
13	Reniers
13	Iskandarani
13	Beron-Vera
12	Soloviev
12	Lipphardt
12	Kirwan
12	Huntley
11	Laxague
11	Haza
11	Bogucki
10	Smith
9	Srinivasan
9	Knio
9	Griffa
9	Dawson
9	Curcic
8	Thacker
8	Hogan
8	Coelho
7	Wei
7	Wang
7	Ryan
6	Novelli
6	Matt
6	Mariano
6	MacMahan
6	Lee
6	Haller
6	Geng
6	Dewar
6	Boufadel

BibTeX Citations**A**

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References

- [1] V. Aizinger, J. Proft, C. Dawson, D. Pothina, and S. Negusse. A three-dimensional discontinuous galerkin model applied to the baroclinic simulation of corpus christi bay. *Ocean Dynamics*, 63(1):89–113, 2013.
- [2] S.D. Bachman, B. Fox-Kemper, J.R. Taylor, and L.N. Thomas. Parameterization of frontal symmetric instabilities. i: Theory for resolved fronts. *Ocean Modelling*, 109:72–95, 2017.
- [3] Charlotte A. Benbow, Jamie H. MacMahan, and Edward B. Thornton. Analysis of surface foam holes associated with depth-limited breaking. *Journal of Coastal Research*, 2017. accepted.
- [4] F.J. Beron-Vera. Flow coherence: Distinguishing cause from effect. In G. Ruiz Chavarria, editor, *Topics in Fluid Mechanics*, pages 81–89. Springer, 2014.
- [5] F.J. Beron-Vera, 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(8):087412, 2015.
- [6] F.J. Beron-Vera and J. H. LaCasce. Statistics of simulated and observed pair separations in the gulf of mexico. *Journal of Physical Oceanography*, 46(7):2183–2199, 2016.
- [7] F.J. Beron-Vera, M.J. Olascoaga, and R. Lupkin. Inertia-induced accumulation of flotsam in the subtropical gyres. *Geophysical Research Letters*, 43(23):12228–12233, 2016.
- [8] M. Berta, A. Griffa, M. Magaldi, T. Özgökmen, A. Poje, A. Haza, and J. Olascoaga. Improved surface velocity and trajectory estimates in the gulf of mexico from blended satellite altimetry and drifter data. *Journal of Atmospheric and Oceanic Technology*, 32(10):1880–1901, 2015.
- [9] M. Berta, A. Griffa, T. M. zgkmen, and A.C. Poje. Submesoscale evolution of surface drifter triads in the gulf of mexico. *Geophysical Research Letters*, 43(22):11751–11759, 2016.
- [10] D. J. Bogucki, H. Luo, and J. A. Domaradzki. Experimental evidence of the kraichnan scalar spectrum at high reynolds numbers. *Journal of Physical Oceanography*, 42(10):1717–1728, 2012.
- [11] D. J. Bogucki and G. Spiers. What percentage of the oceanic mixed layer is accessible to marine lidar? global and the gulf of mexico prospective. *Optics Express*, 20(21):23997–24014, 2013.
- [12] D.J. Bogucki, K. Huguenard, B.K. Haus, T.M. Özgökmen, A. Reniers, and N. J. M. Laxague. Scaling laws for the upper-ocean temperature dissipation rate. *Geophysical Research Letters*, 42(3):839–846, 2015.

- [13] D.J. Bogucki and J. A. Domaradzki. Temperature gradient spectra and temperature dissipation rate in a turbulent convective flow. *Journal of Turbulence*, 16(12):1179–1198, 2015.
- [14] R.L. Brouwer, M.A. de Schipper, P.F. Rynne, F.J. Graham, A. J.H.M. Reniers, and J.H. MacMahan. Surfzone monitoring using rotary wing unmanned aerial vehicles. *Journal of Atmospheric and Oceanic Technology*, 32(4):855–863, 2015.
- [15] M. Carrier, H. Ngodock, S. Smith, P. Muscarella, G. Jacobs, T. Özgökmen, B. Haus, and B. Lipphardt. Impact of assimilating ocean velocity observations inferred from lagrangian drifter data using the ncom-4dvar. *Monthly Weather Review*, 142(4):1509–1524, 2014.
- [16] Matthew J. Carrier, Hans E. Ngodock, Philip Muscarella, and Scott Smith. Impact of assimilating surface velocity observations on the model sea surface height using the ncom-4dvar. *Monthly Weather Review*, 144(3):1051–1068, 2016.
- [17] Jeffrey Chanton, Tingting Zhao, Brad E. Rosenheim, Samantha Joye, Samantha Bosman, Charlotte Brunner, Kevin M. Yeager, Arne R. Diercks, and David Hollander. Using natural abundance radiocarbon to trace the flux of petrocarbon to the seafloor following the deepwater horizon oil spill. *Environmental Science and Technology*, 49(2):847–854, 2015.
- [18] Shuyi S. Chen and Milan Curcic. Ocean surface waves in hurricane ike (2008) and superstorm sandy (2012): Coupled model predictions and observations. *Ocean Modelling*, 103:161–176, 2016.
- [19] E. Coelho, P. Hogan, G. Jacobs, P. Thoppil, H. Huntley, B. Haus, B. Lipphardt, Jr., A. D. Kirwan, Jr., E. H. Ryan, J. Olascoaga, G. Novelli, F. Beron-Vera, A. C. Haza, A. C. Poje, A. Griffa, T.M. Özgökmen, D. Bogucki, S. S. Chen, M. Curcic, M. Iskandarani, F. Judt, N. Laxague, A. J. Mariano, A.J.H.M. Reniers, C. Smith, A. Valle-Levinson, and M. Wei. Ocean current estimation using a multi-model ensemble kalman filter during the grand lagrangian deployment experiment (GLAD). *Ocean Modelling*, 87:86–106, 2015.
- [20] Milan Curcic, Shuyi S. Chen, and Tamay M. Özgökmen. Hurricane-induced ocean waves and stokes drift and their impacts on surface transport and dispersion in the gulf of mexico. *Geophysical Research Letters*, 43(6):2773–2781, 2016.
- [21] Cayla Dean, Alexander Soloviev, Amy Hirons, Tamara Frank, and Jon Wood. Biomixing due to diel vertical migrations of zooplankton: Comparison of computational fluid dynamics model with observations. *Ocean Modelling*, 98:51–64, 2016.
- [22] Bruno Deremble. Convective plumes in rotating systems. *Journal of Fluid Mechanics*, 799(7):27–55, 2016.
- [23] W.K. Dewar, J. Schoonover, T.J. McDougall, and W.R. Young. Semicompressible ocean dynamics. *Journal of Physical Oceanography*, 45(1):149156, 2015.

- [24] William K. Dewar, Joseph Schoonover, Trevor McDougall, and Rupert Klein. Semi-compressible ocean thermodynamics and boussinesq energy conservation. *Fluids*, 1(2):9, 2016.
- [25] J.C. Dietrich, C.J. Trahan, M.T. Howard, J.G. Fleming, R.J. Weaver, S. Tanaka, L. Yu, R.A. Luettich, Jr., C.N. Dawson, G. Wells, J.J. Westerink, A. Lu, K. Vega, A. Kubach, K.M. Dresback, R.L. Kolar, C. Kaiser, and R.R. Twilley. Surface trajectories of oil transport along the northern coastline of the gulf of mexico. *Continental Shelf Research*, 41:17–47, 2012.
- [26] J.C. Dietrich, C.N. Dawson, J.M. Proft, M.T. Howard, G. Wells, J.G. Fleming, R.A. Luettich, Jr., J.J. Westerink, Z. Cobell, M. Vitse, H. Lander, B.O. Blanton, C.M. Szpilka, and J.H. Atkinson. *Real-Time Forecasting and Visualization of Hurricane Waves and Storm Surge Using SWAN+ADCIRC and FigureGen*, volume 156, pages 49–70. The IMA Volumes in Mathematics and its Applications, 2013.
- [27] M. A. Donelan, M. Curcic, S. S. Chen, and A. K. Magnusson. Modeling waves and wind stress. *Journal of Geophysical Research*, 117(C11):C00J23, 2012.
- [28] A. Fabregat, W.K. Dewar, T.M. Özgökmen, A.C. Poje, and N. Wienders. Numerical simulations of turbulent thermal, bubble and hybrid plumes. *Ocean Modelling*, 90:16–28, 2015.
- [29] A.T. Fabregat, A.C. Poje, T.M. Özgökmen, and W.K. Dewar. Effects of rotation on turbulent buoyant plumes in stratified environments. *Journal of Geophysical Research*, 121(8):5397–5417, 2016. Gulf Oil Spill special section.
- [30] A.T. Fabregat, B. Deremble, A.C. Poje, T.M. Özgökmen, and W.K. Dewar. Dynamics of multiphase turbulent plumes with hybrid buoyancy sources in stratified environments. *Physics of Fluids*, 28(9):095109, 2016.
- [31] L. Fiorentino, M.J. Olascoaga, and A.D.K.J. Reniers. Analysis of water quality and circulation of four recreational miami beaches through the use of lagrangian coherent structures. *Marine Pollution Bulletin*, 83(1):181–189, 2014.
- [32] Erick Fredj, Daniel Carlson, Yael Amitai, Avi Gozolchiani, and Hezi Gildor. The particle tracking and analysis toolbox (PaTATO) for matlab. *Limnology and Oceanography*, 14(9):586–599, 2016.
- [33] Atsushi Fujimura, Alexander Soloviev, Shin Hyung Rhee, and Roland Romeiser. Coupled model simulation of wind stress effect on far wakes of ships in sar images. *Transactions on Geoscience and Remote Sensing*, 54(5):2543–2551, 2016.
- [34] X. Geng, M. C. Boufadel, K. Lee, S. Abrams, and M. Suidan. Biodegradation of subsurface oil in a tidally influenced sand beach: Impact of hydraulics and interaction with pore water chemistry. *Water Resources Research*, 51(5):3193–3218, 2015.

- [35] X. Geng and M. C. Boufadel. Impacts of evaporation on subsurface flow and salt accumulation in a tidally influenced beach. *Water Resources Research*, 51(7):55475565, 2015.
- [36] X. Geng, M. C. Boufadel, T. Özgökmen, T. King, K. Lee, Y. Lu, and L. Zhao. Oil droplets transport due to irregular waves: Development of large-scale spreading coefficients. *Marine Pollution Bulletin*, 104(1-2):279–289, 2016.
- [37] Xiaolong Geng, Zhong Pan, Michel C. Boufadel, Tamay Özgökmen, Kenneth Lee, and Lin Zhao. Simulation of oil bioremediation of a tidally-influenced beach: Spatiotemporal evolution of nutrient and dissolved oxygen. *Journal of Geophysical Research*, 121(4):2385–2404, 2016. Gulf Oil Spill special section.
- [38] Xiaolong Geng, Michel C. Boufadel, and Nancy Jackson. Evidence of salt accumulation in beach intertidal zone due to evaporation. *Nature.com/Scientific Reports*, 6:31486, 2016.
- [39] R. Golshan, A.E. Tejada-Martnez, M. Juha, and Y. Bazilevs. Les and rans simulation of wind- and wave-forced oceanic turbulent boundary layers in shallow water with wall modeling. *Computers and Fluids*, 142:96–108, 2017.
- [40] Rafael C. Gonçalves, Mohamed Iskandarani, Ashwanth Srinivasan, Carlisle Thacker, Eric Chassignet, and Omar M. Knio. A framework to quantify uncertainty in simulations of oil transport in the ocean. *Journal of Geophysical Research*, 121(4):2058–2077, 2016.
- [41] G. J. Goni, 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*, volume 2, pages 1–22. Springer, 2015.
- [42] M. K. Gough, A. J.H.M. Reniers, J. H. MacMahan, and S. D. Howden. Resonant near-surface inertial oscillations in the northeastern gulf of mexico. *Journal of Geophysical Research*, 121(4):2163–2182, 2016. Gulf Oil Spill special section.
- [43] Lindley Graham, Troy Butler, Scott Walsh, Clint Dawson, and Joannes J. Westerink. A measure-theoretic algorithm for estimating bottom friction in a coastal inlet: Case study of bay st. louis during hurricane gustav (2008). *Monthly Weather Review*, 145(3):929–954, 2017.
- [44] Hadi Hajieghrary, M. Ani Hsieh, and Ira B. Schwartz. Multi-agent search for source localization in a turbulent medium. *Physics Letters A*, 380(20):1698–1705, 2016.
- [45] G. Haller and F.J. Beron-Vera. Geodesic theory of transport barriers in two-dimensional flows. *Physica D*, 241(20):1680–1702, 2012.
- [46] G. Haller and F.J. Beron-Vera. Coherent lagrangian vortices: The black holes of turbulence. *Journal of Fluid Mechanics*, 731:R4, 2013.

- [47] G. Haller and F.J. Beron-Vera. Appendices for coherent lagrangian vortices: the black holes of turbulence.. *Journal of Fluid Mechanics*, 775:R3, 2014.
- [48] G. R. Halliwell, Jr., 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 Atmospheric and Oceanic Technology*, 31(1):105–130, 2014.
- [49] B. Hamilton, C. Dean, N. Kurata, K. Vella, A. Soloviev, A. Tartar, M. Shivji, S. Matt, W. Perrie, S. Lehner, and B. Zhang. Surfactant associated bacteria in the sea surface microlayer: Case studies in the straits of florida and the gulf of mexico. *Canadian Journal of Remote Sensing*, 41(2):135–143, 2015.
- [50] A.C. Haza, T.M. Özgökmen, A. Griffa, A.C. Poje, and M.-P. Lelong. How does drifter position uncertainty affect ocean dispersion estimates? *Journal of Atmospheric and Oceanic Technology*, 31(12):2809–2828, 2014.
- [51] Angelique Haza, Tamay M Özgökmen, and Patrick J Hogan. Impact of submesoscales on surface material distribution in a gulf of mexico mesoscale eddy. *Ocean Modelling*, 107(11):28–47, 2016.
- [52] K. D. Huguenard, D. J. Bogucki, D. G. Ortiz-Suslow, N. J. M. Laxague, J. H. MacMahanc, T. M. Özgökmen, B. K. Haus, A. J. H. M. Reniers, J. Hargrove, A.V. Soloviev, and H. Graber. On the nature of the frontal zone of the choctawhatchee bay plume in the gulf of mexico. *Journal of Geophysical Research*, 121(2):1322–1345, 2016. Gulf Oil Spill special section.
- [53] H.S. Huntley, B.L. Lipphardt, Jr., G. Jacobs, and A.D. Kirwan, Jr. Clusters, deformation, and dilation: Diagnostics for material accumulation regions. *Journal of Geophysical Research*, 120(10):6622–6636, 2015. Gulf Oil Spill special section.
- [54] M. Iskandarani, S. Wang, A. Srinivasan, W. Thacker, J. Winokur, and O. Knio. An overview of uncertainty quantification techniques with application to oceanic and oil-spill simulations. *Journal of Geophysical Research*, 121(4):2789–2808, 2016. Gulf Oil Spill special section.
- [55] M. Iskandarani, 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*, 121(7):4819–4832, 2016. Gulf Oil Spill special section.
- [56] G. Jacobs, J. G. Richman, J. D. Doyle, P. Spence, B. Bartels, C. N. Barron, R. Helber, and F. Bub. Simulating conditional deterministic predictability within ocean frontogenesis. *Ocean Modelling*, 78:1–16, 2014.
- [57] G.A. Jacobs, B.P. Bartels, D.J. Bogucki, F.J. Beron-Vera, S.S. Chen, E.F. Coelho, M. Curcic, A. Griffa, M. Gough, B.K. Haus, A.C. Haza, R.W. Helber, P.J. Hogan, H.S. Huntley, M. Iskandarani, F. Judt, A.D. Kirwan, Jr., N. Laxague, A. Valle-Levinson, B.L. Lipphardt, Jr., A.J. Mariano, H.E. Ngodock, G. Novelli, M.J. Olascoaga, T.M. Özgökmen, A.C. Poje, A. J.H.M. Reniers, C.D. Rowley, E.H. Ryan, S.R. Smith, P.L.

- Spence, P.G. Thoppil, and M. Wei. Data assimilation considerations for improved ocean predictability during the gulf of mexico grand lagrangian deployment (GLAD). *Ocean Modelling*, 83:98–117, 2014.
- [58] Gregg A. Jacobs, Helga S. Huntley, A. D. Kirwan, Jr., Bruce L. Lipphardt, Jr., Timothy Campbell, Travis Smith, Kacey Edwards, and Brent Bartels. Ocean processes underlying surface clustering. *Journal of Geophysical Research*, 121(1):180–197, 2016. Gulf Oil Spill special section.
- [59] S.B. Joye, J. Montoya, S. Murawski, T. Özgökmen, T. Wade, R. Montuoro, B. Roberts, D. Hollander, W. Jeffrey, and J. Chanton. A rapid response study of the hercules gas well blowout. *Eos, Transactions AGU*, 95(38):341–342, 2014. 23 September 2014.
- [60] Samantha B. Joye, Annalisa Bracco, Tamay M. Özgökmen, Jeffrey P. Chanton, Martin Grosell, Ian R. MacDonald, Erik E. Cordes, Joseph P. Montoya, and Uta Passow. The gulf of mexico ecosystem, six years after the macondo oil wll blowout. *Deep-Sea Research II*, 129:4–19, 2016.
- [61] F. Judt and S. S. Chen. A new aircraft hurricane wind climatology and applications in assessing predictive skill of tropical cyclone intensity using high-resolution ensemble forecasts. *Geophysical Research Letters*, 42(14):60436050, 2015.
- [62] F. Judt, S. Chen, and J. Berner. Predictability of tropical cyclone intensity: Scale-dependent forecast error growth in high-resolution stochastic kinetic-energy backscatter ensembles. *Quarterly Journal of the Royal Meteorological Society*, 142(694):43–57, 2016.
- [63] Falko Judt, Shuyi S. Chen, and Milan Curcic. Atmospheric forcing of the upper ocean transport in the gulf of mexico: From seasonal to diurnal scales. *Journal of Geophysical Research*, 121(6):4416–4433, 2016. Gulf Oil Spill special section.
- [64] Naoko Kurata, Kate Vella, Bryan Hamilton, Mahmood Shivji, Alexander Soloviev, Silvia Matt, Aurlien Tartar, and William Perrie. Surfactant-associated bacteria in the near-surface layer of the ocean. *Nature.com/Scientific Reports*, 6(19123), 2016.
- [65] N. Laxague, B. K. Haus, D. Bogucki, and T. M. Özgökmen. Spectral characterization of fine-scale wind waves using shipboard optical polarimetry. *Journal of Geophysical Research*, 120(4):3140–3156, 2015.
- [66] Nathan J. M. Laxague, Milan Curcic, Jan-Victor Bjrkqvist, and Brian K. Haus. Gravity capillary wave spectral modulation by gravity waves. *Transactions on Geoscience and Remote Sensing*, 55(5):2477–2485, 2017.
- [67] N.J.M. Laxague, B.K. Haus, D.G. Ortiz-Suslow, C.J. Smith, G. Novelli, H. Dai, T.M. Özgökmen, and H.C. Graber. Passive optical sensing of the near-surface, wind-driven current profile. *Journal of Atmospheric and Oceanic Technology*, 2017. accepted.

- [68] C.-Y. Lee and S. S. Chen. Stable boundary layer and its impact on tropical cyclone structure in a coupled atmosphere-ocean model. *Monthly Weather Review*, 142(5):1927–1944, 2014.
- [69] Guotu Li, Mohamed Iskandarania, Matthieu Le Hnaff, Justin Winokur, Olivier P. Le Matre, and Omar M. Knio. Quantifying initial and wind forcing uncertainties in the gulf of mexico. *Computational Geosciences*, 20(5):11331153, 2016.
- [70] R. Lumpkin, T.M. Özgökmen, and L. Centurioni. Advances in the application of surface drifters. *Annual Review of Marine Science*, 9(1):59–81, 2016.
- [71] K.T. Mandli and C.N. Dawson. Adaptive mesh refinement for storm surge. *Ocean Modelling*, 75:36–50, 2014.
- [72] A. J. Mariano, E. H. Ryan, H. S. Huntley, L.C. Laurindo, E. Coelho, A. Griffa, T. M. Özgökmen, M. Berta, D. Bogucki, S. Chen, M. Curcic, K.L. Drouin, M. Gough, B. K. Haus, A. C. Haza, P. Hogan, M. Iskandarani, G. Jacobs, A. D. Kirwan, Jr., N. Laxague, B. Lipphardt, Jr, M. G. Magaldi, G. Novelli, A. Reniers, J. M. Restrepo, C. Smith, A. Valle-Levinson, and M. Wei. Statistical properties of the surface velocity field in the northern gulf of mexico sampled by glad drifters. *Journal of Geophysical Research*, 121(7):5193–5216, 2016. Gulf Oil Spill special section.
- [73] G.M. Marques and T.M. Özgökmen. On modeling turbulent exchange in buoyancy-driven fronts. *Ocean Modelling*, 83:43–62, 2014.
- [74] S. Matt, A. Fujimura, A. Soloviev, S.H. Rhee, and R. Romeiser. Fine-scale features on the sea surface in sar satellite imagery. part ii: Numerical modeling. *Ocean Science*, 10(3):427–438, 2014.
- [75] T. Mayo, T. Butler, C. Dawson, and I. Hoteit. Data assimilation within the advanced circulation (adcirc) modeling framework for the estimation of mannings friction coefficient. *Ocean Modelling*, 76:43–58, 2014.
- [76] G.M. Maze, M. J. Olascoaga, and L. Brand. Historical analysis of environmental conditions during florida red tide. *Harmful Algae*, 50:1–7, 2015.
- [77] J.A. Mensa, T.M. Özgökmen, A.C. Poje, and J. Imberger. Material transport in a convective surface mixed layer under weak wind forcing. *Ocean Modelling*, 96:226–242, 2015.
- [78] P. Muscarella, M. Carrier, H. Ngodock, S. Smith, B. Lipphardt, A. Kirwan, and H. Huntley. Do assimilated drifter velocities improve lagrangian predictability in an operational ocean model? *Monthly Weather Review*, 143(5):1822–1832, 2015.
- [79] M. J. Olascoaga and G. Haller. Forecasting sudden changes in environmental pollution patterns. *Proceedings of the National Academy of Sciences*, 109(13):4738–4743, 2012.

- [80] M. J. Olascoaga, F. J. Beron-Vera, G. Haller, J. Trinanes, M. Iskandarani, E. F. Coelho, B. Haus, H. S. Huntley, G. Jacobs, A. D. Kirwan, Jr., B.L. Lipphardt, Jr., T. Özgökmen, 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, 2013.
- [81] D. Ortiz-Suslow, B. Haus, N. Laxague, A. Reniers, H. Graber, and N. Williams. The spatial-temporal variability of air-sea momentum fluxes observed at a tidal inlet. *Journal of Geophysical Research*, 120(2):660–676, 2015.
- [82] T.M. Özgökmen and P.F. Fischer. Cfd application to oceanic mixed layer sampling with lagrangian platforms. *International Journal of Computational Fluid Dynamics*, 26(6-8):337–348, 2012.
- [83] T.M. Özgökmen, A.C. Poje, P.F. Fischer, H. Childs, H. Krishnan, C. Garth, A. Haza, and E. Ryan. On multi-scale dispersion under the influence of surface mixed layer instabilities and deep flows. *Ocean Modelling*, 56:16–30, 2012.
- [84] T.M. Özgökmen, F. J. Beron-Vera, D. Bogucki, S. S. Chen, C. Dawson, W. Dewar, A. Griffa, B.K. Haus, A.C. Haza, H. Huntley, M. Iskandarani, G. Jacobs, B. Jagers, A.D. Kirwan, Jr., N. Laxague, B. Lipphardt, Jr., J. MacMahan, A.J. Mariano, J. Olascoaga, G. Novelli, A.C. Poje, A.J.H.M. Reniers, J.M. Restrepo, B. Rosenheim, E.H. Ryan, C. Smith, A. Soloviev, S. Venkataramani, G. Zha, and P. Zhu. Research overview of the consortium for advanced research on transport of hydrocarbon in the environment (CARTHE). In *International Oil Spill Conference Proceedings*, volume 2014, pages 544–560, 2014.
- [85] T. Özgökmen, E. P. Chassignet, C. Dawson, D. Dukhovskoy, G. Jacobs, J. Ledwell, O. Garcia-Pinada, I. MacDonald, S. L. Morey, M. Olascoaga, A. C. Poje, M. Reed, and J. Skancke. Over what area did the oil and gas spread during the 2010 deepwater horizon oil spill? *Oceanography*, 29(3):96–107, 2016.
- [86] G. Panteleev, M. Yaremchuk, O. Francis, and T. Kikuchi. Configuring high frequency radar observations in the southern chukchi sea. *Polar Science*, 7(2):72–81, 2013.
- [87] Gleb Panteleev, Max Yaremchuk, and W. Erick Rogers. Adjoint-free variational data assimilation into a regional wave model. *Journal of Atmospheric and Oceanic Technology*, 32(7):1386–1399, 2015.
- [88] M.A. Pendergraft and B.E. Rosenheim. Varying relative degradation rates of oil in different forms and environments revealed by ramped pyrolysis. *Environmental Science and Technology*, 48(18):10966–10974, 2014.
- [89] A. C. Poje, T. M. Özgökmen, B. Lipphardt, Jr., B. Haus, E. H. Ryan, A. C. Haza, G. Jacobs, A. J.H.M. Reniers, J. Olascoaga, G. Novelli, A. Griffa, F. J. Beron-Vera, S. S. Chen, P. Hogan, E. Coelho, A.D. Kirwan, Jr., H. Huntley, and A. J. Mariano. Submesoscale dispersion in the vicinity of the deepwater horizon spill. *Proceedings of the National Academy of Sciences*, 111(35):12693–12698, 2014.

- [90] A. C. Poje, T.M. Özgökmen, D.J. Bogucki, and A. Kirwan, Jr. Evidence of a forward energy cascade and kolmogorov self-similarity in submesoscale ocean surface drifter observations. *Physics of Fluids*, 29(2):020701, 2017. special issue for Prof. John Lumley.
- [91] J.M. Restrepo, S. Venkataramani, and C. Dawson. Nearshore sticky waters. *Ocean Modelling*, 80:49–58, 2014.
- [92] J.M. Restrepo, V. Shankar, D. Comeau, and H. Flaschka. Defining a trend for time series using the intrinsic time-scale decomposition. *New Journal of Physics*, 16(8):085004, 2014.
- [93] I. Romero, T. Özgökmen, S. Snyder, P. Schwing, B. OMalley, F. Beron-Vera, M. Olascoaga, P. Zhu, E. Ryan, S. Chen, D. Wetzel, and D. Hollanderand S. Murawski. Tracking the hercules 265 marine gas well blowout in the gulf of mexico. *Journal of Geophysical Research*, 121(1):706–724, 2016. Gulf Oil Spill special section.
- [94] B. Rosenheim, M.A. Pendergraft, G.C. Flowers, R. Carney, J. Sericano, R.M. Amer, J. Chanton, Z. Dincer, and T. Wade. Employing extant stable carbon isotope data in gulf of mexico sedimentary organic matter for oil spill studies. *Deep-Sea Research II*, 129:249–258, 2016.
- [95] Steven Rosenthal, Shankar Venkataramani, Arthur J. Mariano, and Juan M. Restrepo. Displacement data assimilation. *Journal of Computational Physics*, 330, 2017.
- [96] M. Roth, J. MacMahan, A. Reniers, T.M. Özgökmen, K. Woodall, and B. Haus. Observations of inner shelf cross-shore surface material transport adjacent to a coastal inlet in the northern gulf of mexico. *Continental Shelf Research*, 137(4):142–153, 2017.
- [97] A. Sarafraz and B. K. Haus. A structured light method for underwater surface reconstruction. *ISPRS Journal of Photogrammetry and Remote Sensing*, 114(4):40–52, 2016.
- [98] K. Schroeder, J. Chiggiato, A.C. Haza, A. Griffa, T.M. Özgökmen, P. Zanasca, A. Molcard, M. Borghini, P.M. Poulain, R. Gerin, Z. Zambianchi, P. Falco, and C. Trees. Targeted lagrangian sampling of submesoscale dispersion at a coastal frontal zone. *Geophysical Research Letters*, 39(11):L11608, 2012.
- [99] N. Sinha, A.E. Tejada-Martnez, C. Akan, and C.E. Grosch. Toward a k-profile parameterization of langmuir turbulence in shallow coastal shelves. *Journal of Physical Oceanography*, 45(12):2869–2895, 2015.
- [100] K. M. Smith, P. E. Hamlington, and B. Fox-Kemper. Effects of submesoscale turbulence on ocean tracers. *Journal of Geophysical Research*, 121(1):908–933, 2016. Gulf Oil Spill special section.
- [101] A. Soloviev, A. Fujimura, and S. Matt. Air-sea interface in hurricane conditions. *Journal of Geophysical Research*, 117(C11):C00J34, 2012.

- [102] A. Soloviev, C. Maingot, S. Matt, R. E. Dodge, S. Lehner, D. Velotto, S. Brusch, W. Perrie, and E. Hochberg. Fine-scale features on the sea surface in sar satellite imagery part 1: Simultaneous in-situ measurements. *Ocean Science Discussions*, 9(5):2885–2914, 2012.
- [103] A. Soloviev and R. Lukas, editors. *The Near-Surface Layer of the Ocean: Structure, dynamics and applications*, volume 48 of *Atmospheric and Oceanographic Sciences Library*. Springer, second edition, 2014.
- [104] A.V. Soloviev, R. Lukas, M.A. Donelan, B.K. Haus, and I. Ginis. The air-sea interface and surface stress under tropical cyclones. *Nature.com/Scientific Reports*, 4:5306, 2014.
- [105] A.V. Soloviev, S. Matt, and A. Fujimura. Three-dimensional dynamics of freshwater lenses in the oceans near-surface layer. *Oceanography*, 28(1):142–149, 2015.
- [106] A. V. Soloviev, B. K. Haus, M. G. McGauley, C. W. Dean, D. Ortiz-Suslow, N. Laxague, and T. M. Özgökmen. Surface dynamics of crude and weathered oil in the presence of dispersants: Laboratory experiment and numerical simulation. *Journal of Geophysical Research*, 121(5):3502–3516, 2016. Gulf Oil Spill special section.
- [107] I. Sraj, M. Iskandarani, A. Srinivasan, W.C. Thacker, J. Winokur, A. Alexanderian, C. Lee, S. S. Chen, and O.M. Knio. Bayesian inference of drag parameters using axbt data from typhoon fanapi. *Monthly Weather Review*, 141(7):2347–2367, 2013.
- [108] I. Sraj, 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, 2014.
- [109] M. H. M. Sulman, H.S. Huntley, B.L. Lipphardt, Jr., and A.D. Kirwan, Jr. Out of flatland: Three-dimensional aspects of lagrangian transport in geophysical fluids. In J. Lin, D. Brunner, C. Gerbig, A. Stohl, A. Luhar, and P. Webley, editors, *Langrangian Modeling of the Atmosphere*, AGU Geophysical Monograph Series, pages 77–84. AGU, 2012.
- [110] M. H. M. Sulman, H.S. Huntley, B.L. Lipphardt, Jr., and A.D. Kirwan, Jr. Leaving flatland: Diagnostics for lagrangian coherent structures in three-dimensional flows. *Physica D*, 258:77–92, 2013.
- [111] M. H. M. Sulman, H.S. Huntley, B.L. Lipphardt, Jr., G. Jacobs, P. Hogan, and A.D. Kirwan, Jr. Hyperbolicity in temperature and flow fields during the formation of a loop current ring. *Nonlinear Processes in Geophysics*, 20(5):883–892, 2013.
- [112] Nobuhiro Suzuki and Baylor Fox-Kemper. Understanding stokes forces in the wave-averaged equations. *Journal of Geophysical Research*, 121(5):3579–3596, 2016. Gulf Oil Spill special section.
- [113] Nobuhiro Suzuki, Baylor Fox-Kemper, Peter E. Hamlington, and Luke P. Van Roekel. Surface waves affect frontogenesis. *Journal of Geophysical Research*, 121(5):3597–3624, 2016. Gulf Oil Spill special section.

- [114] W. Carlisle Thacker, Mohamed Iskandarani, Rafael C. Goncalves, Ashwanth Srinivasan, and Omar M. Knio. Pragmatic aspects of uncertainty propagation: A conceptual review. *Ocean Modelling*, 95:25–36, 2015.
- [115] A. Valle-Levinson, K. Huguenard, L. Ross, J. Branyon, J. MacMahan, and A. Reniers. Tidal and nontidal exchange at a subtropical inlet: Destin Inlet, Northwest Florida. *Estuarine, Coastal and Shelf Science*, 155:137–147, 2015.
- [116] Rachel Walker, Andrs E. Tejada-Martnez, and Chester E. Grosch. Large-eddy simulation of a coastal ocean under the combined effects of surface heat fluxes and full-depth langmuir circulation. *Journal of Physical Oceanography*, 46(8):2411–2436, 2016.
- [117] P. Wang and T. M. Özgökmen. How do hydrodynamic instabilities affect 3d transport in geophysical vortices? *Ocean Modelling*, 87:48–66, 2015.
- [118] P. Wang and T. M. Özgökmen. Spiral inertial waves emitted from geophysical vortices. *Ocean Modelling*, 99:22–42, 2016.
- [119] S. Wang, M. Iskandarani, A. Srinivasan, W. C. Thacker, J. Winokur, and O. M. Knio. Propagation of uncertainty and sensitivity analysis in an integral oil-gas plume model. *Journal of Geophysical Research*, 121(5):3488–3501, 2016. Gulf Oil Spill special section.
- [120] Peng Wang, Tamay M. Özgökmen, and Angelique C. Haza. Material dispersion by oceanic internal waves. *Environmental Fluid Mechanics*, 2016. accepted.
- [121] M. Wei, G. Jacobs, C. Rowley, C. Barron, P. Hogan, P. Spence, O.M. Smedstad, P. Muscarella, and E. Coelho. The impact of initial spread calibration on the relo ensemble and its application to lagrangian dynamics. *Nonlinear Processes in Geophysics*, 20(5):621–641, 2013.
- [122] M. Wei, C. Rowley, P. Martin, C.N. Barron, and G. Jacobs. The u.s. navys relo ensemble prediction system and its performance in the gulf of mexico. *Quarterly Journal of the Royal Meteorological Society*, 140(681):1129–1149, 2014.
- [123] M. Wei, G. Jacobs, C. Rowley, C. N. Barron, P. Hogan, P. Spence, O.M. Smedstad, P. Martin, P. Muscarella, and E. Coelho. The performance of the us navys relo ensemble, ncom, hycom during the period of glad at-sea experiment in the gulf of mexico. *Deep-Sea Research II*, 129:374–393, 2016.
- [124] J. Winokur, P. Conrad, I. Sraj, O.M. 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, 2013.
- [125] M. Yaremchuk, P. Spence, M. Wei, and G. Jacobs. Lagrangian predictability in the dwh region from hf radar observations and model output. *Deep-Sea Research II*, 129:394–400, 2016.

- [126] M. Yaremchuk and E. Coelho. Filtering drifter trajectories sampled at submesoscale resolution. *IEEE Journal of Oceanic Engineering*, 40(3):497–505, 2015.
- [127] M. Yaremchuk and P. Martin. On sensitivity analysis within the 4DVAR framework. *Monthly Weather Review*, 142(2):774–787, 2014.
- [128] L. Zhao, M.C. Bouffadel, K. Lee, T. King, N. Loney, and X. Geng. Evolution of bubble size distribution from gas blowout in shallow water. *Journal of Geophysical Research*, 121(3):1573–1599, 2016. Gulf Oil Spill special section.
- [129] P. Zhu and J. Furst. On the parameterization of surface momentum transport via drag coefficient in low wind conditions. *Geophysical Research Letters*, 40(11):2824–2828, 2013.
- [130] P. Zhu. On the mass-flux representation of vertical transport in moist convection. *Journal of the Atmospheric Sciences*, 72(12):4445–4468, 2015.
- [131] P. Zhu, Y. Wang, S. Chen, M. Curcic, and C. Gao. Impact of storm-induced cooling of sea surface temperature on large turbulent eddies and vertical turbulent transport in the atmospheric boundary layer of hurricane isaac. *Journal of Geophysical Research*, 121(1):861–876, 2016. Gulf Oil Spill special section.