Helga Schaffrin Huntley

CONTACT INFORMATION

University of Delaware
Marine Science & Policy
306 Robinson Hall
Newark, DE 19716

Phone: (302) 831-1175
Fax: (302) 831-6521
E-mail: helgah@udel.edu
Web: www.ceoe.udel.edu/our-people/profiles/helgah

RESEARCH INTERESTS

Lagrangian ocean dynamics; oil spill prediction; state estimation and predictability; sea ice and polar oceanography; geophysical fluid dynamics; mathematical, computational and statistical modeling

EDUCATION

Ph.D., Mathematics
Advisors: Esteban Tabak, David Holland
Topic: Modeling of sea ice dynamics
Courant Institute of Mathematical Sciences, New York University, New York, NY
September 2005

M.S., Mathematics
Courant Institute of Mathematical Sciences, New York University, New York, NY
May 2003

B.S., Mathematics, *summa cum laude*, ΦBK
Undergraduate Thesis Advisor: Frank Connolly
Undergraduate Thesis Topic: Hyperelliptic Riemann surfaces
University of Notre Dame, South Bend, IN
Arts and Letters/Science Honors Program
May 1999

ACADEMIC POSITIONS

Research Associate Professor, September 2018 – present
Program of Physical Ocean Science & Engineering,
School of Marine Science & Policy, University of Delaware, Newark, DE

Research Assistant Professor, September 2011 – August 2018
Program of Physical Ocean Science & Engineering,
School of Marine Science & Policy, University of Delaware, Newark, DE

Research Associate, September 2007 – August 2011
Program of Physical Ocean Science & Engineering,
School of Marine Science & Policy, University of Delaware, Newark, DE

Acting Assistant Professor, September 2005 – August 2007
Department of Applied Mathematics,
University of Washington, Seattle, WA

Graduate Assistant, August 2000 – July 2005
Department of Mathematics, Courant Institute of Mathematical Sciences,
New York University, New York, NY

Research Assistant, Summer 1997
Department of Astronomy, Ohio State University, Columbus, OH
Advisors: Donald Terndrup, Marc Pinsonneault
Topics: Analysis of stellar rotation rates, modeling of stellar evolution

PUBLICATIONS

Pearson, J., B. Fox-Kemper, B. Pearson, H. Chang, B. K. Haus, J. Horstmann, **H. S. Huntley**, A. D. Kirwan, Jr., B. Lund, A. Poje, Biases in structure functions from observations of submesoscale flows, *J. Geophys. Res. Oceans*, submitted, 2019.

Huntley, H. S., B. L. Lipphardt, Jr., A. D. Kirwan, Jr., Anisotropy and inhomogeneity in drifter dispersion, *J. Geophys. Res. Oceans*, doi: 10.1029/2019JC015179, in print, 2019.

Chang, H., **H. S. Huntley**, A. D. Kirwan Jr., D. F. Carlson, J. A. Mensa, S. Mehta, G. Novelli, T. M. Özgökmen, B. Fox-Kemper, B. Pearson, J. Pearson, R. Harcourt, A. C. Poje, Small-scale dispersion in the presence of Langmuir circulation, *J. Phys. Oceanogr.*, doi: 10.1175/JPO-D-19-0107.1, 2019.

Carlson, D. F., T. Özgökmen, G. Novelli, C. Guigand, H. Chang, B. Fox-Kemper, J. Mensa, S. Mehta, E. Fredj, **H. Huntley**, A. D. Kirwan, Jr., M. Berta, M. Rebozo, M. Curcic, E. Ryan, B. Lund, B. Haus, J. Molemaker, C. Hunt, S. Chen, L. Bracken, J. Horstmann, Surface ocean dispersion observations from the Ship-Tethered Aerostat Remote Sensing System, *Frontiers Mar. Sci.*, **5**(479), doi: 10.3389/fmars.2018.00479, 2018.

Chang, H., **H. S. Huntley**, A. D. Kirwan, Jr., B. L. Lipphardt, Jr., M. H. M. Sulman, Transport structures in a 3D periodic flow, *Commun. Nonlinear Sci. Numer. Simul.*, **61**, 84-103, doi: 10.1016/j.cnsns.2018.01.014, 2018.

Haza, A., E. D'Asaro, H. Chang, S. Chen, M. Curcic, C. Guigand, **H. S. Huntley**, G. Jacobs, G. Novelli, T. M. Özgökmen, A. C. Poje, E. Ryan, A. Shcherbina, Drogue-loss detection of surface drifters during the Lagrangian Submesoscale Experiment (LASER), *J. Atmos. Oceanic Technol.*, **35**(4), 705–725 doi: 10.1175/JTECH-D-17-0143.1, 2018.

D'Asaro, E., A. Shcherbina, J. M. Klymak, J. Molemaker, G. Novelli, C. M. Guigand, A. Haza, B. Haus, E. Ryan, G. A. Jacobs, **H. S. Huntley**, N. J. M. Laxague, S. Chen, F. Judt, J. C. McWilliams, R. Barkan, A. D. Kirwan, Jr., A. C. Poje, T. M. Özgökmen, Ocean convergence and dispersion of flotsam, *PNAS*, **115**(6), 1162–1167, doi: 10.1073/pnas.1718453115, 2018.

Huntley, H. S., P. Ryan, Wind effects on flow patterns and net fluxes in density-driven channel flow, *J. Geophys. Res. Oceans*, **123**(1), 305–323, doi: 10.1002/2017JC012748, 2018.

Kirwan, Jr., A. D., **H. S. Huntley**, H. Chang, Emergence of Coherent Clusters in the Ocean, in *Advances in Nonlinear Geosciences*, edited by A. Tsonis, Springer, 213–224, doi: 10.1007/978-3-319-58895-7_12, 2018.

Mariano, A. J., E. H. Ryan, **H. S. Huntley**, L. C. Laurindo, E. Coelho, A. Griffa, T. M. Özgökmen, M. Berta, D. Bogucki, S. Chen, M. Curcic, 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. Restrepo, C. Smith, A. Valle-Levinson, M. Wei, Statistical properties of the northern Gulf of Mexico surface velocity field as sampled by GLAD drifters, *J. Geophys. Res. Oceans*, **121**, 5193–5216, doi: 10.1002/2015JC011569, 2016.

Jacobs, G., **H. S. Huntley**, A. D. Kirwan, Jr., B. L. Lipphardt, Jr., T. Campbell, T. Smith, K. Edwards, B. Bartels, Ocean processes underlying surface clustering, *J. Geophys. Res. Oceans*, **121**, 180–197, doi: 10.1002/2015JC011140, 2016.

Huntley, H. S., B. L. Lipphardt, Jr., G. Jacobs, A. D. Kirwan, Jr., Clusters, deformation, and dilation: Diagnostics for material accumulation regions, *J. Geophys. Res. Oceans*, **120**, 6622–6636, doi: 10.1002/2015JC011036, 2015.

Muscarella, P., M. Carrier, H. Ngodock, S. Smith, B. L. Lipphardt, Jr., A. D. Kirwan, Jr., **H. S. Huntley**, Do assimilated drifter velocities improve Lagrangian predictability in an operational ocean model?, *Mon. Weather Rev.*, **143**, 1822–1832, doi: 10.1175/MWR-D-14-00164.1, 2015.

Coelho, E. F., P. Hogan, G. Jacobs, P. Thoppil, **H. S. Huntley**, B. Haus, B. L. Lipphardt, Jr., A. D. Kirwan, Jr., E. Ryan, M. J. Olascoaga, F. J. Beron-Vera, A. C. Poje, A. Griffa, T. M. Özgökmen, A. J. Mariano, G. Novelli, A. C. Haza, D. Bogucki, S. S. Chen, M. Curcic, M. Iskandarani, F. Judt, N. Laxague, A. J. H. M. Reniers, A. Valle-Levinson, M. Wei, Ocean current estimation using a multi-model ensemble Kalman filter during the Grand LAgrangian Deployment experiment (GLAD), *Ocean Model.*, **87**, 86–106, doi: 10.1016/j.ocemod.2014.11.001, 2015.

Jacobs, G., B. Bartels, D. Bogucki, F. J. Beron-Vera, 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, M. Wei, Data assimilation considerations for improved ocean predictability during the Gulf of Mexico Grand Lagrangian Deployment (GLAD), *Ocean Model.*, **83**, 98–117, doi: 10.1016/j.ocemod.2014.09.003, 2014.

Özgökmen, T. M., 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.-C. Zha, P. Zhu, Research overview of the Consortium for Advanced Research on Transport of Hydrocarbon in the Environment (CARTHE), *Intl Oil Spill Conf. Proc.*, **2014**(1), 544–560, doi: 10.7901/2169-3358-2014.1.544, 2014.

Poje, A. C., T. M. Özgökmen, B. L. Lipphardt, Jr., B. K. Haus, E. H. Ryan, A. C. Haza, G. A. Jacobs, A. J. H. M. Reniers, M. J. Olascoaga, G. Novelli, A. Griffa, F. J. Beron-Vera, S. S. Chen, E. Coelho, P. J. Hogan, A. D. Kirwan, Jr., **H. S. Huntley**, A. J. Mariano, Submesoscale dispersion in the vicinity of the *Deepwater Horizon* spill, *PNAS*, **111**(35), 12693–12698, doi: 10.1073/pnas.1402452111, 2014.

Olascoaga, M. J., F. J. Beron-Vera, G. Haller, J. Triñanes, 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, A. Valle-Levinson, Drifter motion in the Gulf of Mexico constrained by altimetric Lagrangian coherent structures, *Geophys. Res. Lett.*, **40**(23), 6171–6175, doi: 10.1002/2013GL058624, 2013.

Sulman, M. H. M., **H. S. Huntley**, B. L. Lipphardt, Jr., G. Jacobs, P. Hogan, A. D. Kirwan, Jr., Hyperbolicity in temperature and flow fields during the formation of a Loop Current ring, *Nonlin. Processes Geophys.*, **20**(5), 883–892, doi: 10.5194/npg-20-883-2013, 2013.

Sulman, M. H. M., **H. S. Huntley**, B. L. Lipphardt, Jr., A. D. Kirwan, Jr., Leaving flatland: Diagnostics for Lagrangian coherent structures in three-dimensional flows, *Physica D*, **258**, 77–92, doi: 10.1016/j.physd.2013.05.005, 2013.

Sulman, M. H. M., **H. S. Huntley**, B. L. Lipphardt, Jr., A. D. Kirwan, Jr., Out of flatland: Three-dimensional aspects of Lagrangian transport in geophysical fluids, in *Lagrangian Modeling of the Atmosphere*, Geophys. Monogr. Ser., vol. 200, edited by J. Lin et al., AGU, 77–84, doi: 10.1029/2012GM001279, 2013.

Huntley, H. S., B. L. Lipphardt, Jr., A. D. Kirwan, Jr., Surface drift predictions of the *Deepwater Horizon* spill: The Lagrangian perspective, in *Monitoring and Modeling the Deepwater Horizon Oil Spill: A Record-Breaking Enterprise*, Geophys. Monogr. Ser., vol. 195, edited by Y. Liu et al., AGU, 179–195, doi: 10.1029/2011GM001097, 2011.

Chang, Y., D. Hammond, A. C. Haza, P. Hogan, **H. S. Huntley**, A. D. Kirwan, Jr., B. L. Lipphardt, Jr., V. Taillandier, A. Griffa, T. M. Özgökmen, Enhanced estimation of sonobuoy trajectories by velocity reconstruction with near-surface drifters, *Ocean Model.*, **36**, 179–197, doi: 10.1016/j.ocemod.2010.11.002, 2011.

Huntley, H. S., B. L. Lipphardt, Jr., A. D. Kirwan, Jr., Lagrangian predictability assessed in the East China Sea, *Ocean Model.*, **36**, 163–178, doi: 10.1016/j.ocemod.2010.11.001, 2011.

Huntley, H. S., G. J. Hakim, Assimilation of time-averaged observations in a quasi-geostrophic atmospheric jet model, *Climate Dynamics*, **35**, 995–1009, doi: 10.1007/s00382-009-0714-5, 2010.

Huntley, H. S., E. G. Tabak, An optimization approach to modeling sea ice dynamics; Part 2: Finite ice strength effects, *SIAM J. Appl. Math.*, **67**, 561–581, doi: 10.1137/060668651, 2007.

Huntley, H. S., E. G. Tabak, E. H. Suh, An optimization approach to modeling sea ice dynamics; Part 1: Lagrangian framework, *SIAM J. Appl. Math.*, **67**, 543–560, doi: 10.1137/040621156, 2007.

Schaffrin, H., An Optimization Approach to Sea Ice Dynamics, Ph.D. thesis, NYU, 2005.

Recently Awarded Grants

"Lagrangian Metrics for the Identification and Prediction of Loop Current Eddy Shedding Events", PI with J. Kuehl and A.D. Kirwan, Jr., National Academy of Sciences, $302,287, February 2020 – July 2021.

"Lagrangian Transport Analysis: Leveraging Models and Observations", PI, NRL, $62,500, February 2019 – October 2019.

"Coherent Lagrangian Pathways in 3D+1 Submesoscale Transport in CALYPSO", PI with A.D. Kirwan, Jr., ONR, $493,812, May 2018 – April 2023.

"Consortium for Advanced Research on Transport of Hydrocarbon in the Environment (CARTHE III)", PI for the UD component, with 18 co-PIs at 12 institutions, GoMRI, $500,000 (UD component), January 2018 – December 2019.

"Consortium for Advanced Research on Transport of Hydrocarbon in the Environment (CARTHE II)", PI for the UD component, with 40 co-PIs at 27 institutions, GoMRI, $749,727 (UD component), January 2015 – June 2018.

"Consortium for Advanced Research on Transport of Hydrocarbon in the Environment (CARTHE)", Co-PI with 28 co-PIs at 12 institutions, GoMRI, $643,991 (UD component), October 2011 – December 2015.

"Dynamical systems theory in 4D geophysical fluid dynamics", Co-PI with 12 co-PIs at 8 institutions, ONR (MURI), $1,470,684, October 2010 – March 2017.

"Dynamics and Forcing of Nares Strait from 2003 to 2009: Tidal to Interannual Variability to the West of Greenland", Co-PI with A. Münchow, NSF, $684,344, August 2010 – July 2014.

Teaching Experience

Undergraduate Level:
Climate and Life (UD, spring 2016)
Beginning Scientific Computing (UW, spring 2006, winter 2007)
Introduction to Continuous Mathematical Modeling (UW, fall 2005)
Calculus I (NYU, fall 2003)
Calculus II (NYU, spring 2003)
Mathematical Thinking (NYU, fall 2001)
Calculus I Recitation (NYU, fall 2002)
Honors Calculus I Recitation – proof-based (NYU, spring 2001)
Interns since 2011: Julie Jones (UD), Natalie Zielinski (UD), Nate Murry (Millersville U.), Madelyn Langin (UD), David Yudin (UD)

Graduate Level:
M.S. committee member for R. Alan Mason (UD, summer 2019 – present)
M.S. committee member for Michalea King (UD, spring 2015 – spring 2016)
M.S. advisor for Sigourney Stelma (UD, fall 2012 – spring 2015)
Ph.D. committee member for Patricia Ryan (UD, winter 2012 – spring 2018)
M.S. committee member for Lauren Brown (UD, winter 2008 – spring 2011)
Applied Linear Algebra and Introductory Numerical Analysis (UW, fall 2006)

Postdoctoral Scholars:
Henry Chang (2015 – 2019)
Mohammed H. M. Sulman (2011 – 2013)

Research Field Experience

Coherent Lagrangian Pathways from the Surface Ocean to Interior (CALYPSO)
Western Mediterranean, March – April 2019
Chief Scientists: A. Mahadevan (WHOI), E. D'Asaro (U. of Washington)
Shore Support: Real-time model data analysis for adaptive deployments

Submesoscale Processes and Lagrangian Analysis on the Shelf (SPLASH)
Gulf of Mexico, April – May 2017
Chief Scientists: J. Molemaker (U. of California, L. A.), A. Shcherbina (U. of Washington)
Shore Support: Adaptive deployment input, real-time model and observational data analysis

Lagrangian Submesoscale Experiment (LASER)
Gulf of Mexico, January – February 2016
Chief Scientists: E. D'Asaro (U. of Washington), T. Özgökmen and G. Novelli (U. of Miami)
Participation: Drifter deployments, real-time model and observational data analysis, log QC

Grand Lagrangian Deployment (GLAD)
Gulf of Mexico, July – August 2012
Chief Scientists: B. Haus (U. of Miami), T. Özgökmen (U. of Miami)
Shore Support: Deployment planning assistance, real-time model and observational data analysis

Canadian Archipelago Throughflow Study (CATS)
Nares Strait, Arctic, July – August 2003
Chief Scientists: K. Falkner (Oregon State U.), A. Münchow (U. of Delaware), H. Melling (Inst. of Ocean Sciences), R. MacDonald (Inst. of Ocean Sciences)
Participation: Data collection (ADCP, Seabeam, CTD), mooring deployment

Patent

Jacobs, G., A.D. Kirwan, Jr., **H.S. Huntley**, B.L. Lipphardt, Jr., Gathering Materials on the Ocean Surface Based on Forecasting Area Density, U.S. Patent No. 10120836, 2016.

Recent Presentations

Lagrangian Incoherence — The Role of Submesoscale Divergence and Vertical Velocity in Mesoscale Coherence
CALYPSO Project Meeting, Alcudia, Spain, June 2019.

Lagrangian Incoherence — The Role of Submesoscale Divergence, Deformation, and Vorticity in Mesoscale Coherence
SIAM Conference on Applications of Dynamical Systems, Snowbird, UT, May 2019.

Exchange Properties of the Louisiana Bight
SMSP Lewes-Newark Colloquia, University of Delaware, Newark, DE, May 2019.

Exchange Properties of the Louisiana Bight (poster)
Gulf of Mexico Oil Spill & Ecosystem Science Conference, New Orleans, LA, February 2019.

Lagrangian vs. Eulerian Scale Dependence of Vorticity, Divergence, and Deformation
CARTHE Project Meeting, Miami, FL, November 2018.

Lagrangian Evolution of Kinematic Properties of Ocean Surface Currents Across Scales
American Mathematical Society Sectional Meeting, Newark, DE, September 2018.

Scale-Dependent Divergence and Vorticity (and Deformation) Estimates in the Louisiana Bight
CARTHE Project Meeting, Miami, FL, April 2018.

Clustering, Deformation, and Dispersion of Buoyant Material
Gulf of Mexico Oil Spill & Ecosystem Science Conference, New Orleans, LA, February 2018.

Divergence, Vorticity, and Shear: Estimates from SPLASH Gridded Drifter Arrays
CARTHE Project Meeting, Miami, FL, November 2017.

Dispersion vs. Clustering: Evolution of Drifter Distributions at the Ocean Surface (poster)
Gulf of Mexico Oil Spill & Ecosystem Science Conference, New Orleans, LA, February 2017.

Clustering Behavior of LASER Drifters, Observed and Modeled
CARTHE Project Meeting, Miami, FL, November 2016.

Evolution of Clusters at the Ocean Surface in Models and Observations
SIAM Conference on Mathematics of Planet Earth, Philadelphia, PA, September 2016.

Big Data Challenges: What to Do to Be Compliant
CARTHE Project Meeting, Miami, FL, May 2016.

Seasonality of the Surface Circulation in the Northeastern Gulf of Mexico: Insights from Two Large-Scale Drifter Deployments
Ocean Sciences Meeting, New Orleans, LA, February 2016.

Anisotropy and Inhomogeneity in Clustering and Dispersion
CARTHE Project Meeting, Miami, FL, October 2015.

Life Cycle of a Cluster
Lagrangian Analysis and Prediction of Coastal and Ocean Dynamics Meeting, Winter Harbor, ME, July 2015.

One- and Two-Dimensional Dispersion Quantification from Drifter Triads (poster)
Gulf of Mexico Oil Spill & Ecosystem Science Conference, Houston, TX, February 2015.

Selected Awards and Fellowships

Alan Berman Research Publication Award (with co-authors)
Naval Research Laboratory, March 2017

Poster Prize (as co-author)
SIAM Conference on Mathematics of Planet Earth, October 2016

Trabant Award for Women's Equity (as board member of the Women's Caucus)
President's Diversity Initiative, University of Delaware, May 2013

Boeing Award for Excellence in Teaching
Dept. of Applied Mathematics, University of Washington, January 2007

VIGRE Postdoctoral Fellowship
Dept. of Applied Mathematics, University of Washington, September 2005 – August 2007

Dean's Dissertation Fellowship
Graduate School for Arts and Sciences, New York University, September 2004 – May 2005

Bella Manel Prize for excellence and promise in graduate mathematics by a woman
Courant Institute, New York University, May 2004

Service Experience

Consortium for Advanced Research on Transport of Hydrocarbon in the Environment
Data Manager, February 2015 – present
Coordination of long-term storage of data at the Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), member of the GRIIDC advisory council

MathCounts (competition for middle school students)
Proofreader for school handbook and competitions, 1997 – present (except 1998 & 2000)

Conservation Advisory Commission, City of Newark, DE
Member, March 2019 – present
Advisor to city council on issues involving the city's natural resources

Newark Community Sustainability Plan Steering Committee, City of Newark, DE
Member, January 2018 – present
Oversight of the planning process for long-term sustainability of the city

BikeNewark, Newark, DE
Member, 2017 – present
Co-Chair, 2019 – present
Advocacy for improved bikeability and walkability in the City of Newark

Women's Caucus, University of Delaware
Board Member, April 2011 – June 2017
Publications Subcommittee Chair, December 2012 – June 2015
Advocacy for women at UD

Faculty Senate Commission on Sexual Harassment and Assault, University of Delaware
Member, December 2014 – December 2015
Review of policies; design and analysis of survey of undergraduates

Deep Roots, Inc. (charity giving scholarships to youth in developing countries)
Board Member-at-Large, March 2010 – July 2013
Chair, Board of Directors, May 2004 – March 2010
Vice-Chair, Board of Directors, October 2002 – May 2004
Co-founder and -director, Zambia program, August 2000 – October 2002

UNICEF, Windhoek, Namibia
Intern, Early Childhood Development Division, Summer 2001
Capacity building for national preschool network

Development Aid from People to People, Monze, Zambia
Development Instructor, Child Aid Project, January 2000 – July 2000
Anti-AIDS education, small-scale business training, developed and implemented an orphan-support program

Other Professional Service

Reviews: AGU Monograph, Continental Shelf Research, Deep Sea Research, Estuarine, Coastal and Shelf Science, Geophysical Research Letters, Journal of Advances in Modeling Earth Systems, Journal of Geophysical Research – Oceans, Journal of Marine Systems, Monthly Weather Review, NSF – Polar Programs, Ocean Dynamics, New Zealand Journal of Marine and Freshwater Research, Ocean Modelling, Physica D, Remote Sensing of the Environment

Other Contributions: Deepwater Horizon Long-Term Data Management Coordination Workshop, Mobile, AL, June 2017, *participant*.

Selected Outreach Activities

Dispatches from the Gulf, Screenscope
Interviews in 2016 and 2018 for outreach videos (e.g., `www.youtube.com/watch?v=MwnALFCMP-I` and `www.youtube.com/watch?v=vfJeJL7-Iek`) and podcasts (e.g., episodes 43 – 45 of `soundcloud.com/gulfdispatches/tracks`)

Art in Science Exhibit and Symposium, University of Delaware, April 2016
Displayed image "Dilation in a Model of the Northeastern Gulf of Mexico", People's Choice Award winner

University of Delaware Coast Day, Lewes, DE, October 2014
Booth and activity: Oil Spills, Airplanes, Rubber Duckies – The Challenges of Predicting Motion in the Ocean

Science Cafe, Newark, DE, July 2014
Oil Spills, Airplanes, Rubber Duckies: The Challenges of Predicting Motion in the Ocean

ENSC 101 (Intro. to the Environment) guest lecture, U. of Delaware, Fall 2017 & Fall 2018
WOMS 299 (Research on Women) guest lecture, U. of Delaware, Fall 2014
MAST 100 (Marine Science Colloquium) guest lecture, U. of Delaware, Fall 2013

Miscellaneous

Languages: English, German, some French
Membership in Professional Societies: American Geophysical Union, Society for Industrial and Applied Mathematics