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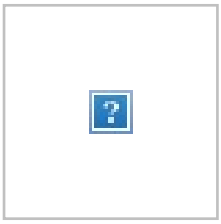
Education



PhD in Earth, Environmental and Planetary Sciences
Advisor: Prof. Baylor Fox-Kemper

2015-Expected 2020
Brown University

B.A. in Mathematics
Advisor: Prof. Lidia Filus

2008-2014
Northeastern Illinois University

B.A. in Earth Science
Advisor: Prof. Ken Voglesonger

2008-2014
Northeastern Illinois University

Peer-Reviewed Publications

1. Pearson, J., Fox-Kemper, B., Pearson, B., Chang, H., Haus, B., Horstmann, J., Huntley, H., Kirwan, D. A., Jr., Poje, A., Submitted to JGR: Biases in structure functions from observations of submesoscale flows

2. Pearson, J., Fox-Kemper, Sane, A., In Prep: Blended second and third order structure function laws for passive-reactive tracers in geophysical flows

3. Pearson, B., Pearson, J., Fox-Kemper, B., In Prep: Structure Functions in Quasigeostrophic Turbulence

4. Pearson, B., Pearson, J.,Fox-Kemper, B., In Revision in PRF: Relation between structure functions and cascade rates in anisotropic 2D turbulence

5. Chang, H., Huntley, H., Kirwan, D., Jr., Carlson, D., Mensa, J., Mehta, S., Novelli, G., Ozgokomen, T., Fox-Kemper,B., Pearson, B., Pearson, J., Harcourt, R. Accepted in JPO: Small-scale dispersion observations in the presence of Langmuir circulation. J. Phys. Oceanogr.[PDF, DOI]

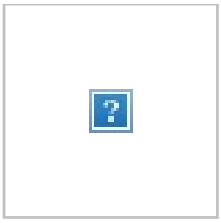
6. Pearson, J., Fox-Kemper, B., Barkan, R., Choi, J., Bracco, A., & McWilliams, J., 2019: Impacts of convergence on structure functions from surface drifters in the Gulf of Mexico. J. Phys. Oceanogr., 49, 675–690, [PDF, DOI]

7. Xia, C., Cochrane, C., DeGuire, J., Fan, G., Holmes, E., McGuirl, M., Murphy, P., Palmer, J., Carter, P., Slivinski, L., & Sandstede, B., 2017: Assimilating Eulerian and Lagrangian data in traffic-flow models. Physica D: Nonlinear Phenomena,346, 59-72 [PDF, DOI]

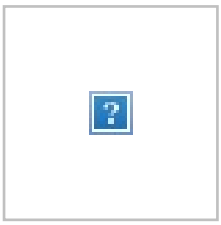
Professional & Teaching Experience

Graduate Research Assistant
Advisor: Prof. Baylor Fox-Kemper
Statistical methods paired with models, observations, and theory to isolate biases in quasi-Lagrangian observation platforms and reactive-tracer fields in the presence of turbulence

Fall 2015-Present
Brown, University

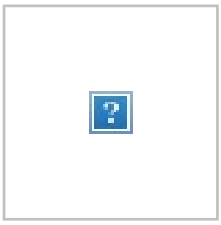


Instructor for Summer @ Brown — Summer 2020
Studying the Ocean from Blackboard to the Bay — *Brown University*



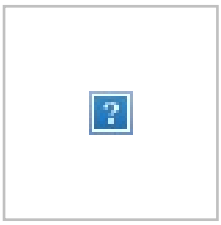
Course Designer and Co-instructor for Summer @ Brown
Studying the Ocean from Blackboard to Drones

Summer 2018 & 2019
Brown University



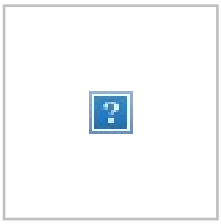
Graduate Teaching Assistant
Intro. to Oceanography under Prof. Steve Clemens

Spring 2019
Brown University



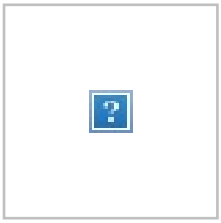
Graduate Teaching Assistant
Global Climate & Weather under Prof. Amanda Lynch

Fall 2017
Brown University



Undergraduate Researcher
Advisor: Prof. Björn Sandstede, Division of Applied Mathematics
Analysis of data assimilation and parameter estimation schemes applied to traffic models

Summer 2014
Brown University



Undergraduate Researcher
Advisor: Prof. Alkes Price, Department of Epidemiology
Statistical methods to infer consistency across populations of genetic variants associated with type-II diabetes

Summer 2013
Harvard University

Awards & Honors

Funding

Brown Fellow, Brown University	2015-2016
NSF MaPs Scholar, Northeastern Illinois University	2012-2014
First Sergeant Council Scholarship, ILARNG	2011

Honors

Tse Cheuk Ng Tai Innovations in Fluids and Health 2019 Award, Tse Cheuk Ng Tai Innovation Fund	07/26/2019
GoMRI Scholar, Gulf of Mexico Research Initiative [Article]	2018
Deans List, Northeastern Illinois University	2008-2014
Women in Mathematics, Northeastern Illinois University	2013
Army Achievement Medal, ILARNG	2011
Army Achievement Medal, ILARNG	2011
Command Sergeant Major's Award, ILARNG	2009
National Service Award, ILARNG	2006

Travel Grants

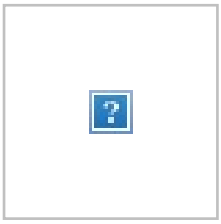
Fluids and Health 2019 Junior Researcher Fellowship	2019
Brown University Graduate School Conference Travel Grant	
Brown University Graduate School International Travel Grant	
National Institute for Mathematical and Biological Synthesis Travel Grant	
Society for Advancement of Chicanos and Native Americans in Science Travel Grant	2019

2019
2013
2012

Skills & Training

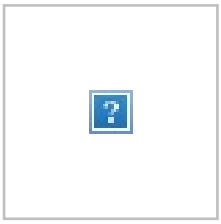
Computer Languages: Matlab, Python, R, Java and LATEX

2008-Present



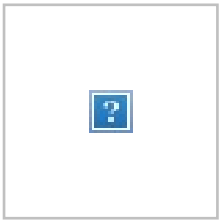
Consortium for Advanced Research on Transport of Hydrocarbon in the Environment III
2 weeks launching driftcards in the Gulf of Mexico shelf area and optimizing plate detection algorithms.

Spring 2017
Grand Isle, LA



Community Earth System Model (CESM) Tutorial 2019
1 week of lecture and hands on activities to learn to operate CESM.

08/05-08/09 2019
NCAR, CO



Cornell Satellite Remote Sensing Training Program
2 week summer course on remote sensing with a focus on ocean color.

06/03-06/14 2019

Ithaca, NY

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American Institute of Biological Sciences & RI NSF EPSCoR/RI C-AIM Enabling Interdisciplinary and Team Science Workshop — Feb 2019, *Kingston, RI*

The Harriet W. Sheridan Center for Teaching and Learning
Certificate I: Reflective Teaching

Fall 2018
Providence, RI

godae_logo.jpg

GODAE Oceanview International School
New frontiers in operational oceanography — Fall 2017, *Mallorca, Spain*

neiu_logo.png

Service & Outreach

Northeastern Illinois University Field School
2 weeks producing detailed geologic maps, stereonets, and reports on geomorphological and glacial features of a syncline area

Contributions — Summer 2014
Baraboo, WI

Big Bang Science Fair Demonstrator, Waterfire in Providence, RI
Career Day Geosciences Speaker, Lincoln Middle School
GradCon Coordinator, Brown University
Elementary School Science Instructor, Vartan Gregorian Elementary
GRE Math Preparation Course Instructor, Northeastern Illinois University
EMERGE Peer Leader, Northeastern Illinois University

Mathematics Enrichment Workshop Program Peer Leader, Northeastern Illinois University — Sept 2019
CLS Coordinator and Instructor, ILARNG — Apr 2019
Aug 2018
2015-2016
Aug 2015
Jul-Aug 2015
2010-2012
2009-2011

Reviews

Reviewer, Ocean Science	2019-Present
Reviewer, Journal of Physical Oceanography	2019-Present
Reviewer, Journal of Fluid Mechanics	2018-Present
Expert Reviewer, Intergovernmental Panel on Climate Change	2018-2019

Departmental Service

International Graduate Student Mentor, Brown University	2017-Present
First Year Graduate Student Mentor, Brown University	2017-Present
Geoclub Treasurer, Brown University	2016-2017

Invited Presentations

1. Xia, C., Cochrane, C., DeGuire, J., Fan, G., Holmes, E., McGuirl, M., Murphy, Palmer, J., P., Carter, P., Slivinski, L., & Sandstede, B., 2015: Microscopic and macroscopic traffic modeling utilizing data assimilation. The 5th Workshop in Statistical & Mathematical Modeling. Invited Oral.

2. Palmer, J.,Santana, L., Anderson, R., Price, A., 2013: Consistency across ancestries of genetic associations of type-II diabetes. MaPS Scholars Fall Meeting. Invited Oral.

Conference Contributions

1. Ben-Horin, T., Sane, A., Pearson, J., Fox-Kemper, B., 2019: Pathogen Dispersal in Narragansett Bay, Fluids and Health. Oral. [PPT]

2. Pearson, J., Fox-Kemper, B., Huntley, H., Chang, H., Kirwan, D., Jr., Pearson, B., 2019: Systematic Differences Between Eulerian and Surface Drifter Statistics in the Gulf of Mexico, AOFD, abstract 358490.Poster. [PDF]

3. Pearson, J., Fox-Kemper, B., Huntley, H., Chang, H., Kirwan, D., Jr., Pearson, B., 2019: Do surface drifters accurately represent Eulerian turbulence statistics?, LAPCOD. Oral. [PDF]

4. Pearson, J., Fox-Kemper, B., Huntley, H., Chang, H., Kirwan, D., Jr., Pearson, B., 2019: Do surface drifters accurately capture turbulent mixing in the Gulf of Mexico?, Earth Itself 2019. Poster. [PDF]

5. Pearson, J., Fox-Kemper, B., Huntley, H., Chang, H., Kirwan, D., Jr., Pearson, B., 2019: Do surface drifters accurately capture turbulent mixing in the Gulf of Mexico?, RI C-AIM Research Symposium 2019. Poster. [PDF]

6. Pearson, J., Fox-Kemper, B., Barkan, R., Choi, J., Bracco, A., & McWilliams, J., 2019: Impacts of convergence zones on Lagrangian structure function statistics in the Gulf of Mexico, CLIVAR. Oral. [PDF]

7. Pearson, J., Fox-Kemper, B., Barkan, R., Choi, J., Bracco, A., & McWilliams, J., 2018: Impacts of convergence zones on Lagrangian structure function statistics in the Gulf of Mexico, GRC. Poster. [PDF]

8. Pearson, J., Fox-Kemper, B., Barkan, R., Choi, J., Bracco, A., & McWilliams, J., 2018: Impacts of Convergence Zones on Lagrangian Structure Function Statistics in the Gulf of Mexico. KITP, Poster. [PDF]

9. Pearson, J., Fox-Kemper, B., Barkan, R., Choi, J., Bracco, A., & McWilliams, J., 2018: Impacts of convergence zones on Lagrangian structure function statistics in the Gulf of Mexico, Waters Edge. Poster. [PDF]

10. Pearson, J., Fox-Kemper, B., Barkan, R., Choi, J., Bracco, A., & McWilliams, J., 2018: Impacts of Convergence Zones on Lagrangian Structure Function Statistics in the Gulf of Mexico. OSM, abstract PS33A-01. Poster. [PDF]

11. Pearson, J., Fox-Kemper, B., Barkan, R., Choi, J., Bracco, A., & McWilliams, J., 2017: Evaluation of Lagrangian Structure Function Statistics in the Gulf of Mexico. AOFD. Oral. [PDF, Recording]

12. Pearson, J., Fox-Kemper, B., Barkan, R., Choi, J., Bracco, A., & McWilliams, J., 2017: Impacts of Convergence Zones on Lagrangian Structure Function Statistics in the Gulf of Mexico. GODAE International School. Poster. [PDF]

13. Pearson, J., Fox-Kemper, B., Bodner, A., 2016: Preparing for Model-Data Comparison: Structure Functions and Frontogenesis. CARTHE II All Hands Meeting. Oral. [PDF]

14. Pearson, J., Fox-Kemper, B., Barkan, R., Choi, J., Bracco, A., & McWilliams, J., 2016: Structure Function Statistics to Detect Submesoscale Cascades. OSM, abstract PO34C-3066. Poster. [PDF]

15. Palmer, J.,Santana, L., Anderson, R., Price, A., 2013: Consistency across ancestries of genetic associations of type-II diabetes. Harvard Summer Research Symposium. Oral.

Professional Memberships

American Meteorological Society	2018-Present
American Geophysical Union	2018-Present
Graduate Women in Science & Engineering	2015-Present
Association for the Sciences of Limnology and Oceanography	2015-Present