

JENNA L. PEARSON

PHD CANDIDATE OF EARTH, ENVIRONMENTAL, & PLANETARY SCIENCES

Brown University
167 Thayer St.
Providence, RI 02912

tel: 701.330.8270
jenna_pearson@brown.edu
www.jennalynnperson.com

Education

PhD in Earth, Environmental and Planetary Sciences	2015-Expected 2020
Advisor: Prof. Baylor Fox-Kemper	<i>Brown University</i>
B.A. in Mathematics	2008-2014
Advisor: Prof. Lidia Filus	<i>Northeastern Illinois University</i>
Magna cum laude	
B.A. in Earth Science	2008-2014
Advisor: Prof. Ken Voglesonger	<i>Northeastern Illinois University</i>
Magna cum laude	

Training

The Harriet W. Sheridan Center for Teaching and Learning	Fall 2018
Certificate I: Reflective Teaching	<i>Providence, RI</i>
GODAE Oceanview International School	Fall 2017
New frontiers in operational oceanography	<i>Mallorca, Spain</i>

Peer-Reviewed Publications

PUBLISHED

- [1] 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. [DOI](#)

ACCEPTED

- [2] **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. *Journal of Physical Oceanography* [DOI](#)

SUBMITTED

- [3] Pearson, B., **Pearson, J.**, Fox-Kemper, B., 2019: Relation Between Structure Functions and Cascade Rates in Anisotropic Two-Dimensional Turbulence Submitted to JFM Rapids
- [4] 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. 2019: Small-scale dispersion observations in the presence of Langmuir circulation Submitted to JPO

IN PREP

- [5] **Pearson, J.**, Fox-Kemper, B., Pearson, B., Huntley, H., Chang, H., Kirwan, D., Jr., 2019: Observed biases in surface drifter statistics in the Gulf of Mexico Submitting to GRL
- [6] **Pearson, J.**, Fox-Kemper, B., Freilich, M., Mahadevan, A., 2019: Dynamical information from spectra of passive-reactive tracers in 2D & QG turbulence Submitting to GRL
- [7] **Pearson, J.**, Fox-Kemper, B., Freilich, M., Mahadevan, A., 2019: Blended Second and Third Order Structure function laws for passive-reactive tracers in 3D turbulence Submitting to JGR

[8] Pearson, B., **Pearson, J.**, Fox-Kemper, B., 2019: Structure Functions in Quasigeostrophic Turbulence Submitting to JGR

Professional & Teaching Experience

Graduate Research Assistant	Sep 2015-Present
Advisor: Prof. Baylor Fox-Kemper	<i>Brown University</i>
Statistical methods paired with models, observations, and theory to isolate biases in Lagrangian observation platforms as well as characterize reactive-tracer fields in the presence of turbulence	
Graduate Teaching Assistant	Spring 2019
<i>Intro. to Oceanography</i> under Prof. Steve Clemens	<i>Brown University</i>
Course Designer and Co-instructor for Summer @ Brown	Jul-Aug 2018
<i>Studying the Ocean from Blackboard to Drones</i> taught with Abigail Bodner	<i>Brown University</i>
Developed and co-taught a two-week summer course introducing pre-college students to physical and observational oceanography	
Graduate Teaching Assistant	Fall 2017
<i>Global Climate & Weather</i> under Prof. Amanda Lynch	<i>Brown University</i>
Undergraduate Researcher	Jun-Aug 2014
Advisor: Prof. Björn Sandstede, Division of Applied Mathematics	<i>Brown University</i>
Analysis of data assimilation and parameter estimation schemes applied to traffic models	
Undergraduate Researcher	Jun-Jul 2013
Advisor: Prof. Alkes Price, Department of Epidemiology	<i>Harvard University</i>
Statistical methods to infer consistency across populations of genetic variants associated with type-II diabetes	

Honors & Awards

GULF OF MEXICO RESEARCH INITIATIVE	
GoMRI Scholar	2018
BROWN UNIVERSITY	
First Year Graduate Fellowship	2015-2016
NORTHEASTERN ILLINOIS UNIVERSITY	
National Science Foundation MaPs Scholar	2012-2014
Dean's List	2008-2014
Women in Mathematics	2013
ILLINOIS ARMY NATIONAL GUARD	
First Sergeant Council Scholarship	2011
Army Commendation Medal	2011
Command Sergeant Major's Award	2011
Army Achievement Medal	2011
National Service Award	2006

Skills & Field Experience

COMPUTER LANGUAGES & SOFTWARE	
MATLAB, Python, R, Java and L ^A T _E X	
FIELDWORK	
CARTHE III	2017
2 weeks launching driftcards in the Gulf of Mexico shelf area of LA	<i>Grande Isle, LA</i>
Northeastern Illinois University Field School	2014

2 weeks producing detailed geologic maps, stereonet, and reports on geomorphological and glacial features of the Baraboo syncline area

Baraboo, WI

Presentations

INVITED

The 5th Workshop in Statistical & Mathematical Modeling

05/2014

Microscopic and macroscopic traffic modeling utilizing data assimilation, Oral

Chicago, IL

SELECTED

Gordon Research Conference: Ocean Mixing

06/2018

Impacts of convergence zones on Lagrangian structure function statistics in the Gulf of Mexico, Poster

Andover, NH

Ocean Sciences Meeting

02/2018

Impacts of convergence zones on Lagrangian structure function statistics in the Gulf of Mexico, Poster

Portland, OR

Atmospheric and Oceanic Fluid Dynamics Meeting

06/2017

Evaluation of Eulerian and Lagrangian structure function statistics in the Gulf of Mexico, Oral

Portland, OR

CARTHE-II All Hands Meeting

11/2016

Preparing for Model-Data Comparison: Structure Functions and Frontogenesis, Oral

Miami, FL

Harvard Summer Research Symposium

07/2013

Consistency across ancestries of genetic associations of type-II diabetes, Oral

Cambridge, MA

Service & Outreach

Invited Referee

2019-Present

Journal of Physical Oceanography

Expert Reviewer

2018

Intergovernmental Panel on Climate Change (IPCC)

Provided feedback on all chapters for the upcoming Special Report on the Ocean and

Cryosphere in a Changing Climate (SROCC)

Invited Referee

2018-Present

Journal of Fluid Mechanics

International Graduate Student Mentor

Fall 2017-Present

Dept. of Earth, Environmental, & Planetary Sciences

Brown University

Co-mentored international graduate students and coordinated international group events

GradCon Coordinator

Aug 2018

Dept. of Earth, Environmental, & Planetary Sciences

Brown University

Co-organized department graduate student research conference

First Year Graduate Student Mentor

Fall 2017

Dept. of Earth, Environmental, & Planetary Sciences

Brown University

Mentored incoming graduate students to ensure successful transition

Geoclub Treasurer

Fall 2016 - Spring 2017

Dept. of Earth, Environmental, & Planetary Sciences

Brown University

Elementary School Science Instructor

2015 - 2016

Dept. of Earth, Environmental, & Planetary Sciences

Brown University

Taught weekly science lessons to underserved second and third grade students at Vartan

Gregorian Elementary School

GRE Math Preparation Course Instructor

Aug 2015

Student Center for Science Engagement

Northeastern Illinois University

Two-week summer course to prepare McNair Scholars for the quantitative section of the GRE

EMERGE Peer Leader

Jul-Aug 2015

Department of Mathematics Month long summer course designed to prepare incoming underrepresented and first-generation undergraduate students for mathematics placement exams	<i>Northeastern Illinois University</i>
Mathematics Enrichment Workshop Program Peer Leader	2010-2012
Department of Mathematics Semester long recurring program designed to assist students in introductory math courses	<i>Northeastern Illinois University</i>
CLS Coordinator and Instructor	2009-2011
Illinois Army National Guard Coordinated and taught Combat Lifesaver Courses to the state of IL and in Balad, Iraq	

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

Last updated February 4, 2019.