

Stan Swierczek

CONTACT INFORMATION	stanleyswierczek@gmail.com	
CITIZENSHIP	US	
RESEARCH INTERESTS	Ocean/Earth System Modeling, Numerical Analysis, Data Assimilation, Mathematical Modeling, Model Validation	
EDUCATION	University of Arizona Ph.D. Applied Mathematics	2021 (expected)
	University of Arizona M.S. Applied Mathematics	2018
	Washington State University M.S. Mathematics	2016
	University of Scranton B.S. Mathematics	2007
SKILLS	MATLAB, Python, MITgcm, Globus, Linux, git, L ^A T _E X	
RESEARCH	Investigating predictability of DIC and SST in the Argentine Basin through wind stress perturbation experiments. Advisors: J. Russell, Department of Geosciences, University of Arizona. M. Mazloff, Climate, Atmospheric Science & Physical Oceanography, Scripps Institution of Oceanography.	2020–2021
	Effect of resolution on heat and carbon transports in a regional ocean circulation model for the Argentine Basin. Advisors: J. Russell, Department of Geosciences, University of Arizona. M. Mazloff, Climate, Atmospheric Science & Physical Oceanography, Scripps Institution of Oceanography. M. Morzfeld, Geophysics Scripps Institution of Oceanography.	2018–2020
	Numerical inversion of Laplace transform. Advisor: M. Brio, Department of Mathematics, University of Arizona.	2017–2018
	Inverse source problem for the wave equation in thermo-acoustic tomography. Advisor: L. Kunyansky, Department of Mathematics, University of Arizona.	2016–2017
GRADUATE COURSEWORK	Earth System Modeling, Climate Dynamics, Fluid Mechanics, Data Assimilation, Numerical Analysis, Numerical Analysis of PDE, Methods of Applied Mathematics, Finite Elements, Time Series Analysis	

WORKSHOPS	ECCO Summer School Consortium for Estimating the Circulation & Climate of the Ocean University of Washington	2019
	Math to Industry Boot Camp Institute for Mathematics and its Applications University of Minnesota	2016
PUBLICATIONS	Swierczek, S., Mazloff, M.R., & Russell, J.L. Investigating predictability of DIC and SST in the Argentine Basin through wind stress perturbation experiments. (in prep)	
	Swierczek, S., Mazloff, M.R., Morzfeld, M., & Russell, J.L. (2021). The effect of resolution on vertical heat and carbon transports in a regional ocean circulation model of the Argentine Basin. <i>Journal of Geophysical Research: Oceans</i> , 126(7), e2021JC017235. https://doi.org/10.1029/2021JC017235	
TALKS	<i>The effect of resolution on vertical heat and carbon transports in a regional ocean circulation model of the Argentine Basin</i> AGU Fall Meeting 2020	December 2020
	Comer Climate Conference 2020	October 2020
	SOC COM Modeling Telecon	May 2020
	AGU Ocean Sciences Meeting 2020	February 2020
	<i>Assimilating float and mooring data to forecast carbon and heat fluxes in the Argentine Basin</i> SOC COM Southern Ocean Meeting, Scripps Institution of Oceanography	March 2019
	<i>Error in Weeks' method for the numerical inverse Laplace transform</i> Research Tutorial Group Seminar, University of Arizona	December 2017
SEAGOING EXPERIENCE	<i>Fundamental ideas of mathematical tomography</i> Applied Math 1 st Year Presentation, University of Arizona	December 2016
	Assistant Deck Operations, R/V Sikuliaq OOI Coastal Endurance Mooring Array Fall 2019 Deployment Washington/Oregon Coast	October 2019
TEACHING EXPERIENCE	Teaching Assistant/Instructor University of Arizona	2016–2018
	Washington State University	2014–2016
OTHER EXPERIENCE	Blasting Technician/Equipment Operator/ Mine Laborer Maurer & Scott, Tamaqua, PA & WESCO, Rillito, AZ	2005–2009, 2011–2012
HONORS AND AWARDS	Excellence in Teaching by a Graduate Student Award Washington State University College of Arts and Sciences	2016
PROFESSIONAL MEMBERSHIPS	American Geophysical Union Society for Industrial and Applied Mathematics American Mathematical Society	