

JINLIANG LIU

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EDUCATION

<i>Ph.D.</i> in Physical Oceanography	2015-2019
<i>Minor</i> in Civil Engineering	(expected)
Louisiana State University	
<i>M.S.</i> in Environmental Science	2011-2014
Ocean University of China	
<i>B.S.</i> in Environmental Science	2007-2011
Ocean University of China	

RESEARCH INTERESTS

Oceanic physical and biogeochemical processes, especially the turbulent mixing in oceanic surface boundary layer and its role in marine particle dynamics; wave dynamics; transport and mixing of sediment, nutrients, and pollutants in estuarine, coastal, and continental shelf environments.

PUBLICATIONS

J. Liu, J.-H. Liang, K. Xu, Q. Chen, and C. E. Ozdemir, 2019. Modeling Sediment Flocculation in Langmuir Turbulence. *Submitted to Journal of Geophysical Research: Oceans*.

Abolfazli, E., J.-H. Liang, Y. Fan, Q. Chen, N. D. Walker, and **J. Liu**, 2018. Surface Gravity Waves and Their Role in Ocean-Atmosphere Coupling in the Gulf of Mexico. *Submitted to Journal of Geophysical Research: Oceans*.

J. Liu, J.-H. Liang, J. C. McWilliams, P. P. Sullivan, Y. Fan, and Q. Chen, 2018: Effect of planetary rotation on oceanic surface boundary layer turbulence. *Journal of Physical Oceanography*, 48(9), 2057–2080

S. Sun and **J. Liu**, 2017: Sensitivity of the antarctic circumpolar current transport to surface buoyancy conditions in the north atlantic. *Ocean Modelling*, 118, 118–129

J. Yu, X. Zhang, **J. Liu**, R. Liu, and X. Wang, 2016: Numerical study on the influences of nanliu river runoff and tides on water age in lianzhou bay. *Chinese journal of oceanology and limnology*, 34(5), 1106–1113

PRESENTATIONS

J. Liu, J.-H. Liang, K. Xu, C. E. Ozdemir, and Q. Chen. Effect of flocculation processes on suspended cohesive sediment in Langmuir turbulence. Gulf of Mexico Oil Spill & Ecosystem Science Conference, 2019. (Poster)

J. Liu, J.-H. Liang, K. Xu, and Q. Chen. Sediment flocculation modulated by turbulent water flows. Louisiana Coastal Geology Symposium, 2018. (Poster)

J. Liu, J.-H. Liang, J. C. McWilliams, P. P. Sullivan, Y. Fan, and Q. Chen. Effect of planetary rotation on oceanic surface boundary layer turbulence. Ocean Science Meeting, 2018. (Talk)

J. Liu. The Coriolis force not discussed in OCS4170 and its effect on upper ocean mixing. College of the Coast and Environment CEGO Seminar Series, 2017. (Talk)

J. Liu, J.-H. Liang. Effect of planetary rotation on wind and wave driven turbulence — a numerical study. Gulf of Mexico Graduate Student Symposium, 2017. (Talk)

J. Liu, J.-H. Liang, and Q. Chen. Large eddy simulation of suspended sediments in shallow water. South-Central GSA Section Meeting, 2016. (Talk)

TEACHING EXPERIENCE

Teaching assistant, Geological Oceanography (OCS 4210), Louisiana State University, Spring 2019.

Teaching assistant, Numerical Analysis for Partial Differential Equations, Ocean University of China, Fall 2013.

SKILLS

Proficient in the large-eddy simulation (LES) model; skilled in ROMS, COAWST, MITgcm, ECOMSED, and FVCOM; experience with Delft3D.

Proficient in Fortran and MATLAB; Skilled in Python.

Extensive experience with Linux system, MPI, shell scripting, and L^AT_EX.