Lixin Qu

Department of Oceanography
Texas A&M University
3146 TAMU
College Station, TX 77843-3146

PERSONAL DETAILS

Phone	(979) 845-5472
Mail	`lixinqu@tamu.edu`
Web	`http://pong.tamu.edu/~lixin`
Address	Eller O&M Building, Room 618

RESEARCH INTERESTS

Coastal circulation forecasting; river plume dynamics; ocean turbulence associated with coastal mixing processes; data assimilation; and theory and numerical simulation of flow in estuarine, coastal, and continental shelf environments.

EDUCATION

Ph.D. Oceanography 2014 - present
Texas A&M University

M.S. Physical Oceanography 2011 - 2014
Ocean University of China
Study Abroad: Germany (Summer 2012)

B.S. Information and Computing Science 2007 - 2011
Ocean University of China
Exchange Program: School of Mathematics, Shandong University, China (2008 - 2009)

RESEARCH EXPERIENCE

Particle Tracking Bias 2017 - present
Physical Oceanography Numerical Group, TAMU
Graduate student researcher for investigating Lagrangian tracking errors due to temporal subsampling of numerical model output in collaboration with Dr. Kristen Thyng.

Pearl River Forecast System 2016 - 2017
Physical Oceanography Numerical Group, TAMU
Graduate student researcher for developing a high-resolution forecast model in the Pearl River region of China. The system is a fully operational ocean circulation forecast model on the South China Sea shelf and provides the real-time analysis and 7-day forecast data for investigating the coastal environments in the Pearl River region.

River Plume Prediction 2015 - 2016
Physical Oceanography Numerical Group, TAMU

Graduate student researcher for studying the wind forcing mechanism controlling the structure, instability, and evolution of river plume under the advisement of Dr. Robert Hetland. This research quantified the temporal resolution of wind forcing required for river plume prediction.

Yellow Sea Warm Current 2012 - 2014

Ocean Circulation Team, OUC

Graduate research assistant for studying the effect of continental shelf wave on the path of Yellow Sea Warm Current under the guidance of Dr. Xiaopei Lin. This research provided the first observational evidence of continental shelf wave in the Yellow Sea and revealed its importance in this region.

Island Rule 2011 - 2012

Ocean Circulation Team, OUC

Graduate research assistant for studying the effect of continental shelf slope around island on the classic Island Rule theory under the advisement of Dr. Xiaopei Lin. This research provided a modified theory by quantifying the topographic effect on Island Rule.

ACADEMIC AND TEACHING EXPERIENCE

Teaching Assistant Spring 2017

Texas A&M University, United States

Python for Geosciences (OCNG 669). Python programming instruction.

Student Lecturer Summer 2012

University of Bremen and University of Kiel, Germany

Sino-German summer school on marine sciences in Leibniz-Zentrum für Marine Tropenforschung, Alfred Wegener Institute, and GEOMAR-Helmholtz Centre.

Graduate Teaching Assistant Fall 2011

Ocean University of China, China

Visual Basic Programming (Teaching Center for Fundamental Courses). Hands-on programming lab and grading.

PUBLICATIONS

Qu, L., T. Zu, and R. D. Hetland, 2017: An operational ocean circulation forecast system in Pearl River region. *Journal of Operational Oceanography* (in preparation).

Qu, L., and R. D. Hetland, 2017: Temporal resolution of wind forcing required for accurate river plume prediction. *Ocean Modelling* (in preparation).

Qu, L., X. Lin, and R. D. Hetland, 2017: The asymmetric continental shelf wave in response to the synoptic wind event in a double-shelf basin. *Journal of Geophysical Research* (submitted).

Qu, L., and X. Lin, 2014: The effect of continental shelf slope around island on the Island Rule (in Chinese). *Journal of Ocean University of China*, 44(Sup.), 001-006.

SKILLS

Analytics	Python, Matlab, Mathematica
Computing	Fortran, C, C++, Shell Scripting
Modelling	ROMS, COAWST, GOTM
Parallelization	MPI(CPU), CUDA(GPU), OpenMP(CPU)
Visualization	JavaScript, Visual Basic, AutoCAD
Software	LaTeX, Microsoft

SCHOLARSHIPS AND AWARDS

2016 - 2017	Webber Scholarship, Department of Oceanography, TAMU
2015 - 2016	Robert O. Reid Fellowship, Department of Oceanography, TAMU
2014 - 2015	James Memorial Scholarship, Department of Oceanography, TAMU
2014 - 2018	National Fellowship (Studying Abroad), China Scholarship Council
2011 - 2012	Outstanding Postgraduate Student Award, OUC
2010 - 2011	Excellent Graduate Student Award, OUC
2009 - 2010	Aihua Scholarship, School of Mathematical Sciences, OUC
2009 - 2010	CUMCM Second Prize, Shandong Division of CUMCM Council
2008 - 2010	Two-time National Scholarship, Ministry of Education of China
2007 - 2010	Three-time Outstanding Undergraduate Student Award, OUC
2007 - 2010	Three-time First-Grade Scholarship, OUC