

CURRICULUM VITA

Jing Lin

Research Assistant Professor

Address: Dept. Marine, Earth, and Atmospheric Sciences
North Carolina State University
Raleigh, NC 27695

Telephone: (919) 515-7912 Fax: (919) 515-7802

E-Mail: jlin3@ncsu.edu

WWW: <http://www.meas.ncsu.edu/waterquality/>



EDUCATION:

The College of William and Mary, Marine Science, Ph.D., 2001.

Ocean University of China, Marine Meteorology, M.S., 1996.

Ocean University of China, Synoptic Dynamics, B.S., 1993.

APPOINTMENTS:

Research Assistant Professor, Dept. Marine, Earth, and Atmospheric Sciences, North Carolina State University.	2003 - present
Assistant Research Scientist, Virginia Institute of Marine Science, School of Marine Science, The College of William and Mary.	2002-2003
Post-doctoral Research Associate, Virginia Institute of Marine Science, School of Marine Science, The College of William and Mary.	2001-2002
Research Assistant, Virginia Institute of Marine Science, School of Marine Science, The College of William and Mary.	1996-2001
Research/Teaching Assistant, Ocean University of China	1993-1996

PROFESSIONAL MEMBORSHIP:

American Geophysical Union
Estuarine Research Federation
Coastal Education and Research Foundation
North Carolina Water Resources Association

AWARDS AND HONORS

2007 Tidal Prism Award, Coastal Federation-Buck Engineer
2006 Wang Kwan-Cheng Research Award, Chinese Academy of Sciences
2005 University Extension and Engagement Grant Award, NCSU
1996 Distinguished Graduate Student Award, OUC
1995 Mini Graduate Research Grant Award, OUC
1989-1993 Distinguished Undergraduate Student Award, OUC
1987 Olympic Competition in Mathematics in Shandong Province, China, Third Prize

RESEARCH GRANTS:

- P.I., 2007-2008, Maryland Department of the Environment, *Development of PCB TMDLs in Baltimore Harbor and Back River, Maryland, \$125K*
- P.I., 2006-2008, North Carolina Department of Environmental and Natural Resources, *Nutrient Response Modeling for Falls Lake, \$220K*
- P.I., 2007- , Coastal Federation-Buck Engineer, *Tidal Prism Award, \$6K*
- Co-PI., 2006-2008, EPA-319, *Identifying Sources of Fecal Contamination and TMDL Development in the Swanquarter Bay. (P.I.: Graves, LeVine, Lin, Li), \$159K*
- P.I., 2004-2006, Maryland Department of the Environment, *Methodology of TMDL Development for Heavy Metals in Small Tidal Water Embayments in Chesapeake Bay, Maryland, \$64K*
- Co-PI, 2005-2006, NOAA/National Sea Grant, *IFLOW: Phase IV – Coupling Watershed/Estuarine Water Quality Model. (P.I.: Pietrafesa, Xie, Lin, Liu), \$75K*
- P.I., 2004-2006, Maryland Department of the Environment, *Development of a Sediment Transport Model for Chesapeake Bay, Adjacent to the Lower and Upper Western Shore of Maryland.*
- Co-PI, 2005, NCSU, *Watershed and Water Quality Modeling for Neuse River Basin and Estuary.*
- 2004-2007, NOAA, *Coastal Ocean Research and Monitoring Program (CORMP).* (senior personnel, P.I.: Pietrafesa and Xie)

REVIEWER For:

Journal of Geophysical Research -Ocean;

Estuarine, Coastal and Shelf Sciences;

Estuaries and Coasts;

Continental Shelf Research;

Journal of Coastal Research;

Marine Ecological Progress Series;

Water Research;

Journal of Waterways, Ports, Coastal, & Ocean Engineering

PUBLICATIONS:

Peer-Reviewed Journals:

- Xu, H., **J. Lin**, D. Wang, and J. Shen, Numerical Study on Water Age and Residence Time in Pamlico River Estuary. In prep.
- Xu, H., **J. Lin**, and D. Wang, Numerical study on salinity stratification in Pamlico River Estuary. In prep.
- Lin, J.**, et al., Interannual variability of hypoxic conditions in the Pamlico River Estuary. submitted.
- Lin, J.**, et al., Water quality responses to simulated flow and nutrient reductions in the Cape Fear River Estuary and adjacent coastal region, North Carolina. submitted.
- Zhang, Z. and **J. Lin**, 2007. Dynamics of Jovian Atmospheres with Applications of Nonlinear Singular Vector Method, International Journal for Numerical Methods in Fluids, DOI: 10.1002/flid.1471
- Lin, J.**, L. Xie, and L.J. Pietrafessa, J.S. Ramus, and H.W. Paerl, 2007. Water Quality Gradients across Albemarle-Pamlico Estuarine System: Seasonal Variations and Model Applications. Journal of Coastal Research. 23(1): 213-229.
- Lin, J.**, L. Xie, L.J. Pietrafesa, J. Shen, M. Mallin, M. Durako, 2006. Dissolved oxygen stratification in micro-tidal, partially-mixed estuaries. Estuarine, Coastal and Shelf Science, doi:10.1016/j.ecss.2006.06.032.
- Shen, J. and **J. Lin**, 2006. Modeling study of the influence of tide and stratification on age of water in the tidal James River. Estuarine, Coastal and Shelf Science 68: 101-112.
- Kuo, A.Y., K. Park, S.-C. Kim, and **J. Lin**, 2005. A Tidal Prism Water Quality Model for Small Coastal Basins, Coastal Management 33(1), 101-117.
- Lin, J.**, H.V. Wang, G.M. Sisson, and J. Shen, 2004. Toxic Modeling in an Industrial Harbor – A Case Study for Baltimore Harbor. Estuarine and Coastal Modeling 8, 455-474.
- Lin, J.** et al. 2003. A new approach to model sediment resuspension in tidal estuaries, Journal of Coastal Research. 19(1): 76-88.
- Lin, J.** and A.-Y. Kuo. 2003. Modeling the Secondary Turbidity Maximum in the York River, Estuary, Virginia, Estuaries 26(5): 1269-1280.
- Lin, J. and A.Y. Kuo. 2001. Secondary turbidity maximum in a micro-tidal partially-mixed estuary. Estuaries 24(5): 707-720.
- Liu, J.P. and J. Lin. 1995. The Variation of typhoon of the north-west Pacific during the last glacial period and its influence on the shelf environment. Marine Sciences (Chinese) 5: 26-28.

Fu, G., F.X. Zhou and **J. Lin**. 1994. On the effect of large scale SSTA upon the tropical atmospheric Kelvin wave, Transactions of Oceanology and Liminology 2: 167-173.

Thesis:

Lin, J. 2001. A Study of the Secondary Turbidity Maximum in the York River Estuary, Virginia. Ph.D. dissertation. School of Marine Science, The College of William and Mary.

Lin, J. 1996. A Study of the winter sea surface heat flux in the mid-altitude. M.S. thesis. Ocean University of China.

Reports:

Lin, J. et al., 2006, Maryland Coastal Bay Nutrient and Dissolved Oxygen TMDL- I. Physical, Biological and Chemical Characteristics of the Coastal Bays, Maryland. Draft Special Report to Maryland Department of the Environment.

Lin, J. J. Shen, and H.V. Wang, 2005, Methodology for PCB and Metal TMDL in Maryland's Tidal Waters and Coastal Embayments. Draft Special Report to Maryland Department of the Environment.

Wang, H.V., **J. Lin**, and G.M. Sisson, 2003, Toxic Modeling in Baltimore Harbor. Special Report to Maryland Department of the Environment.

Kuo, A.Y., A.J. Butt, S.-C. Kim and **J. Lin**. 1998. Application of a tidal prism water quality model to Virginia small coastal basins: Poquoson River, Piankatank River, Cherrystone Inlet, and Hungars Creek. A Report to the Virginia Coastal Resources Management Program, Virginia Department of Environmental Quality. Special Report No. 348 in Applied Marine Science and Ocean Engineering.

Abstracts and Invited Talks:

Lin, J., Numerical Modeling of Sediment Transport and Eutrophication, invited oral presentation at East Carolina University, Greenville, NC. April, 2007.

Lin, J., Coastal Eutrophication and Water Quality Modeling, invited oral presentation in Xiamen University. April, 2007. Xiamen, China.

Lin J., Coastal Eutrophication and Water Quality Modeling, invited oral presentation in East China Normal University. April, 2007. Shanghai, China.

Lin, J., Water quality modeling in Cape Fear River and its adjacent coastal region. Abstract in WRII annual conference, Mar 2007, Raleigh, NC.

Lin, J., Coastal Eutrophication and Water Quality Modeling, invited oral presentation in Coastal Carolina University. March, 2007. Conway, SC.

Lin, J., Falls Lake Modeling, invited oral presentation at Falls Lake TAC meeting, Nov., 06, Raleigh, NC.

- Lin, J., Water Quality Modeling in North Carolina Rivers, invited oral presentation at NC Department of Environment and Natural Resources, Raleigh, NC, Feb., 2006.
- Lin, J., Water Quality Model for CORMP, invited oral presentation in Center for Marine Science, UNCW. December, 2005. Wilmington, NC.
- Lin, J., Water Quality Modeling in North Carolina Rivers, invited oral presentation at East Carolina University, Greenville, NC. Sept. 30, 2005.
- Lin, J., An Introduction to Water Quality Modeling, invited oral presentation for Lower Cape Fear River Program. June, 2005, Wilmington, NC.
- Lin, J., Three-tiered approach in metal TMDL development for Maryland's tidal waters. Abstract in WRRRI annual conference, April 2005. Raleigh, NC.
- Lin, J., L. Xie, and L.J. Pietrafessa. Water Quality Gradients across Albemarle-Pamlico Estuarine System: Seasonal Variations and Model Applications. In Abstract of 2004 American Geophysical Union Fall Meeting, San Francisco, CA.
- Lin, J., H.V. Wang, G.M. Sisson, and J. Shen, 2004. Toxic Modeling in an Industrial Harbor – A Case Study for Baltimore Harbor. Estuarine and Coastal Modeling, In Abstract of 8th International Conference on Estuarine and Coastal Modeling, Monterey, CA.
- Lin, J. and A.Y. Kuo, Nov. 2001, Modeling the Secondary Turbidity Maximum in the York River Estuary, Virginia, In Abstract of 7th International Conference on Estuarine and Coastal Modeling, St. Pete Beach, Florida.
- Lin, J. and A.Y. Kuo. 1999. Secondary Turbidity Maximum in the York River. Virginia, p. 63. In Abstract of ERF'99, the 15th Biennial International Conference, New Orleans, LA.
- Friedrichs, C.T., L.C. Schaffner, T.M. Dellapenna, and J. Lin. 1999. Migration of mud beds associated with double turbidity maxima in a tidally energetic, partially-mixed estuary, p. 37. In Abstract of ERF'99, the 15th Biennial International Conference, New Orleans, LA.
- Maa, J.P.-Y., A.Y. Kuo and J. Lin. 1998. Suspended sediment measurements in the York River System. In Abstract of AGU 1998 Ocean Sciences Meeting, San Diego, CA.

SYNERGISTIC ACTIVITIES

- Developed a sediment sub-model (CH3D-SED) for a 3-dimensional hydrodynamic model CH3D (2001-2002).
- Developed linkage between a coupled hydrodynamic/sediment transport model (CH3D-SED), and a toxic model (CE-QUAL-ICM/TOXI) (2002).

COURSES TAUGHT

MEA 200	Introduction to Oceanography	(38 students, Spring 07) (guest instructor: 12 students, Summer 07)
MEA 250	Introduction to Coastal Environments	(guest Instructor)

STUDENTS and POSTDOCS

Hongzhou Xu (Ph. D. student, co-advising with South China Sea Oceanographic Institution)
Supporting project: *Water Quality and Ecosystem Modeling in the Pamlico Sounds*

Jie Li (Ph.D. Student, co-advising with Ocean University of China)
Supporting project: NCDENR, *Nutrient Response Modeling for Falls Lake*

Dr. Zhiyue Zhang (Visiting scholar/Postdoc, Nanjing Normal University)
Supporting project: NCDENR, *Nutrient Response Modeling for Falls Lake*
& MDE, *PCB Modeling for Baltimore Harbor and Back River*