Curriculum Vitae

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Pengfei Xue

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EDUCATION

Ph.D. in Marine Science, University of Massachusetts Intercampus Marine Science (IMS) graduate program (2012)
B.Sc. in Mathematics and Applied Mathematics, East China Normal University (2004)

RESEARCH INTERESTS

- Hydrodynamic modeling
- Bio-physical processes in the Great Lakes
- Regional climate modeling
- Integrated regional earth modeling system
- Estuary and coastal ocean processes
- Data assimilation and machine learning

ACADEMIC EMPLOYMENT

2020 – Present: Scientist, Joint Appointment with Environmental Science Division, Argonne National Laboratory
2019 – Present: Associate Professor, Michigan Technological University
2018 – Present: Director, Numerical Geophysical Fluid Dynamics Lab, Great Lakes Research Center, Michigan Technological University
2013 – 2019: Assistant Professor, Michigan Technological University
2012 – 2013: Postdoctoral Associate, Massachusetts Institute of Technology
2006 – 2012: Research Assistant, University of Massachusetts-Dartmouth (School for Marine Science Technology)
2005 – 2006: Visiting Scholar, University of Massachusetts (School for Marine Science & Technology)
2004 – 2005: Research Assistant, State Key Laboratory of Estuarine and Coastal Research, China

PEER-REVIEWED JOURNAL PUBLICATIONS (*Student and †Postdoctoral advisee publications using the First–Last (corresponding) Author Emphasis (FLAE)]

1. Ibrahim, H., **Xue, P.**, & Eltahir, E. A. (2020). Multiple Salinity Equilibria and Resilience of Persian/Arabian Gulf Basin Salinity to Brine Discharge. *Frontiers in Marine Science7:573. doi: 10.3389/fmars.2020.00573*

2. Feng, X., Ma, G., Su, S., Huang, C., Boswell, M., **Xue, P.** (2020). A multi-layer perceptron approach for accelerated wave forecasting in Lake Michigan. *Ocean Engineering,* 211, 107526

3. **Xue, P.**, Malanotte-Rizzoli, P., Wei, J., Eltahir, E. A. (2020), Coupled Ocean-Atmosphere Modeling over the Maritime Continent: A Review. *Journal of Geophysical Research-Oceans*, 125, doi:10.1029/2019JC014978

4. Zhang, Y., Chen, C., **Xue, P.,** Beardsley, R. C., & Franks, P. J. (2020). A view of physical mechanisms for transporting harmful algal blooms to Massachusetts Bay. *Marine Pollution Bulletin,* 154, 111048; https://doi.org/10.1016/j.marpolbul.2020.111048

5. †Shi, Q., & **Xue, P.** (2019). Impact of lake surface temperature variations on lake effect snow over the Great Lakes region. *Journal of Geophysical Research-Atmosphere,* 124, 12,553–12,567, DOI:10.1029/2019JD031261

6. *Ye, X., Chu, P. Y., Anderson, E. J., Huang, C., Lang, G. A., & **Xue, P.** (2019). Improved thermal structure simulation and optimized sampling strategy for Lake Erie using a data assimilative model. *Journal of Great Lakes Research*, 46, 144-158, DOI: 10.1016/j.jglr.2019.10.018

7. *Huang, C., Kuczynski, A., Auer, M. T., O'Donnell, D. M., & **Xue, P.** (2019). Managing the Phosphorus-Cladophora Dynamic in Lake Ontario: Insights from Hydrodynamics. *J. Mar. Sci. Eng.* 2019, 7(5), 129; https://doi.org/10.3390/jmse7050129

8. *Ye, X., Anderson, E. J., Chu, P. Y., Huang, C., & **Xue, P.** (2019). Impact of water mixing and ice formation on the warming of Lake Superior: a model-guided mechanism study. *Limnology and Oceanography*, doi: 10.1002/lno.11059

9. **Xue, P.**, Schwab, D.J., Zhou, X., Huang, C., Kibler, R., Ye, X. (2018). A Hybrid Lagrangian–Eulerian Particle Model for Ecosystem Simulation. *J. Mar. Sci. Eng.* 2018, 6, 109. doi: 10.3390/jmse6040109

10. Niroomandi, A., Ma, G., Ye, X., Lou, S., & **Xue, P.** (2018), Extreme Value Analysis of Wave Climate in Chesapeake Bay, *Ocean Engineering*, 159, 22-36, doi: https://doi.org/10.1016/j.oceaneng.2018.03.094

11. Bao, T., Liu, Z., Meldrum, J., Green, C., **Xue, P.**, & Vitton, S. (2018). Field tests and multiphysics analysis of a flooded shaft for geothermal applications with mine water. *Energy Conversion and Management*, 169, 174-185.

12. **Xue, P.**, Schwab, D. J., Sawtell, R. W., Sayers, M. J., Shuchman, R. A., & Fahnenstiel, G. L. (2017), A Particle-tracking Technique for Spatial and Temporal Interpolation of Satellite Images Applied to Lake Superior Chlorophyll Measurements, *J. Great Lakes Res.,* 43(3), 1-13.

13. **Xue, P.**, Pal, J. S., Ye X., Lenters, J. D., Huang, C., Chu, P. Y. (2017), Improving the Simulation of Large Lakes in Regional Climate Modeling: Two-way Lake-atmosphere Coupling with a 3-D Hydrodynamic Model of the Great Lakes, *J. Climate,* 30, 1605–1627, doi: 10.1175/JCLI-D-16-0225.1

14. **Xue, P.**, Schwab, D. J., and Hu S. (2015), An investigation of the thermal response to meteorological forcing in a hydrodynamic model of Lake Superior, *J. Geophys. Res. Ocean*s, 120, 5233–5253, doi:10.1002/2015JC010740.

15. **Xue, P.** and Eltahir E. A. (2015), Estimation of the Heat and Water Budgets of the Persian Gulf Using A Regional Climate Model, *J. Climate*., 28(13), 5041-5062 doi: http://dx.doi.org/10.1175/JCLI-D-14-00189.1

16. Wang, Z., Song, H., Watkins, D. W., Ong, K. G., **Xue, P.,** Yang, Q., & Shi, X. (2015), Cyber-physical systems for water sustainability: challenges and opportunities, *Communications Magazine*, IEEE 53 (5), 216-222, doi: 10.1109/MCOM.2015.7105668

17. **Xue, P.**, Eltahir, E. A., Malanotte-Rizzoli, P., & Wei, J. (2014), Local feedback mechanisms of the shallow water region around the Maritime Continent, *J. Geophys. Res. Oceans*, 119(10), 6933-6951, doi: 10.1002/2013JC009700

18. **Xue, P.**, Chen, C., Qi, J., Beardsley, R. C., Tian, R., Zhao, L., & Lin, H. (2014). Mechanism studies of seasonal variability of dissolved oxygen in Mass Bay: A multi-scale FVCOM/UG-RCA application, *J. Mar. Syst.,* 131, 102-119. doi:10.1016/j.jmarsys.2013.12.00

19. Li, Y., Chen, X., Chen, C., Ge, J., Ji, R., Tian, R., **Xue, P.** and Xu, L. (2014), Dispersal and survival of chub mackerel (*Scomber Japonicus*) larvae in the East China Sea, *Ecol. Model., 283, 70-84.*, doi:10.1016/j.ecolmodel.2014.03.016

20. Wei, J., Malanotte-Rizzoli, P., Eltahir, E. A., **Xue, P.,** & Xu, D. (2013). Coupling of a regional atmospheric model (RegCM3) and a regional oceanic model (FVCOM) over the Maritime Continent*, Clim. Dyn.,* 43(5-6), 1575-1594, doi:10.1007/s00382-013-1986-3.

21. **Xue, P.**, Chen, C., Beardsley, R.C. (2012). Observing System Simulation Experiments (OSSEs) of dissolved oxygen monitoring in Massachusetts Bay, *J. Geophys. Res.*, 117, C05014, doi:10.1029/2011JC007843.

22. Chen, C., Limeburner, R., Gao, G., Xu, Q., Qi, J., **Xue, P.,** Lai, Z., Lin, H., Beardsley, R., Owens, B. and Carlson, B., 2012, FVCOM model estimate of the location of Air France 447 Topical Collection on Advances in Search and Rescue at Sea, *Ocean Dyn*., 62(6),943-952.

23. **Xue, P.**, Chen, C., Beardsley, R.C., Limeburner, R. (2011). Observing System Simulation Experiments (OSSEs) with Ensemble Kalman Filters in Nantucket Sound, Massachusetts, *J. Geophys. Res.*, doi: 10.1029/2010JC006428

24. **Xue, P.**, Chen, C., Ding, P., Beardsley, R. C., Lin, H., Ge, J., & Kong, Y. (2009). Saltwater intrusion into the Changjiang River: A model-guided mechanism study. *J. Geophys. Res,* 114, C02006, doi:10.1029/2008JC004831.

25. Chen, C., Malanotte-Rizzoli, P., Wei, J., Beardsley, R.C., Lai, Z., **Xue, P.,** Lyu, S., Xu, Q., Qi, J. and Cowles, G.W., (2009). Application and comparison of Kalman filters for coastal ocean problems: An experiment with FVCOM, *J. Geophys. Res.*, 114, C05011, doi:10.1029/2007JC004548.

26. Chen, C., **Xue, P.,** Ding, P., Beardsley, R.C., Xu, Q., Mao, X., Gao, G., Qi, J., Li, C., Lin, H. and Cowles, G. (2008). Physical mechanisms for the offshore detachment of the Changjiang diluted water in the East China Sea, *J. Geophys. Res.*, 113, C02002, doi: 10.1029/2006JC003994.

SELECTED PRESENTATIONS (*student and †postdoctoral advisee, presenter)

Presentations at national and international conferences:

A) Podium Presentation (**past three years**)

1. †Shi, Q and **Xue. P.** (2019) Impact of Lake Surface Temperature Variations on Lake Effect Snow over the Great Lakes Region. American Geophysical Union (AGU) fall meeting, San Francisco, CA December 9-13, 2019
2. Chu, P., **Xue, P.,** Ye, X. Huang, C., Pal, J. (2019) Two-way Atmosphere-Lake-Ice Coupled Regional Climate Simulation over the Great Lakes Region Lakes2019 workshop, October 22-24, 2019 Toulouse, France
3. **Xue, P**., Ye, X., Huang, C. (2019) Climate projections over the Great Lakes region using the GLARM. International Association for Great Lakes Research, Brockport, New York, June 10-14, 2019
4. *Huang, C. **Xue, P.** (2019) Three-way Coupled Modeling System for Storm Wave: A Case Study in Lake Superior. International Association for Great Lakes Research, Brockport, New York, June 10-14, 2019
5. **Xue, P**., Ye, X., P. Chu, E. Anderson, Huang, C., G. Lang (2019) Using data assimilation to improve thermal structure prediction in Lake Erie. International Association for Great Lakes Research, Brockport, New York, June 10-14, 2019
6. Chaffin J., J. Bratton, T. Bridgeman, T. Davis, K. Meyer, E. Verhamme, J. Westrick**, P. Xue** (2019). Forecasting Microcystin Concentrations in Western Lake Erie. International Association for Great Lakes Research, Brockport, New York, June 10-14, 2019
7. **Xue, P**., Ye, X., Huang, C. (2019). Impact of Climate Change on Thermal Variability and Ecosystem Vulnerability of the Great Lakes, ASLO aquatic sciences meeting, Puerto Rico February 23- March 2, 2019
8. *Ye, X. and **Xue, P**. (2018). Projected Changes in Future Climate Over the Great Lakes Region Using a Regional Climate Modeling Coupled with a 3-D Lake Model, AGU Fall Meeting, Washington D.C. December 10-14, 2018
9. **Xue, P.**, D. J. Schwab, R. W. Sawtell, M. J. Sayers, R. A. Shuchman, G. L. Fahnenstiel (2018), "Spatiotemporal Interpolation of Satellite Images for Chlorophyll Measurement Using a Particle Model", State of Lake Superior Conference, International Association for Great Lakes Research. Houghton, MI, October 9-12, 2018.
10. **Xue, P.,** Ye, X., Zhou, X., Huang, C., (2018), "A Hybrid Lagrangian-Eulerian Particle Model for Ecosystem Simulation in Sandusky Bay," Estuarine and Coastal Modeling, Seattle, Washington, June 25-28, 2018

11. *Ye, X., Anderson, E. J., Chu, P. Y., Huang, C., **Xue, P.**, (2018), "Modeling the Impact of Water Mixing and Ice on Deep, Inland Lake Warming," International Association for Great Lakes Research, Toronto, Canada. June 18-22, 2018

12. *Kibler, R., Huang, C., Zhou, X., **Xue, P.**, (2018), "Using a Property-carrying Particle Model for Ecosystem Simulation: A Case Study of Sandusky Bay," International Association for Great Lakes Research, Toronto, Canada. June 18-22, 2018

13. Kuczynski, A., Auer, M. T., **Xue, P.**, (2018), "Phosphorus Provenance and Cladophora in the Northern Lake Ontario Nearshore," International Association for Great Lakes Research, Toronto, Canada. June 18-22, 2018

14. Rucinski, D., Verhamme, E., **Xue, P.**, Redder, T., (2018), "Hydrodynamic Modeling to Assess Effectiveness of Shoreline Restoration in Sandusky Bay," International Association for Great Lakes Research, Toronto, Canada. June 18-22, 2018

15. Auer, M. T., McDonald, C. P., Rowe, M., Kuczynski, A., **Xue, P.**, Bakshi, A., *Huang, C., (2018), "Modeling the Efficacy of Phosphorus Treatment Options for the Control of Cladophora in Lake Ontario," International Association for Great Lakes Research, Toronto, Canada. June 18-22, 2018

16. **Xue, P.**, Huang, C., Kuczynski, A., Auer, M. T., (2018), "Hydrodynamics and Its Impact on Water Quality Management in the Northern Nearshore of Lake Ontario," International Association for Great Lakes Research, Toronto, Canada. June 18-22, 2018

B) Poster Presentation (**past three years**)

1. *Zhou, X., **Xue, P**., Auer, M. T. Offshore P-forcing of Cladophora growth in the Lake Michigan nearshore: a 1D modeling approach (2020). International Association for Great Lakes Research (IAGLR), June 9–11, 2020.

2. E. J. Anderson, L. Read, J. Kessler, C. Huang**, P. Xue**, L. Mason, L. Fry, Y. Hong (2019). Linking Watershed Hydrology and Coastal Hydrodynamic Models for Improved Water Level and Inundation Prediction in the Great Lakes, American Geophysical Union (AGU) fall meeting, San Francisco, CA December 9-13, 2019

3. *Ye, X., **Xue, P.,** P. Y. Chu, E. J. Anderson, C. Huang, G. Lang (2019). A Step Toward Incorporating Data Assimilative Capability into the NOAA Great Lakes Operational Forecasting System (GLOFS), CIGLR Annual Meeting, Ann Arbor, September 23-24, 2019

4. *Huang C., and **Xue, P**. (2018). Improve the Wave Simulation in the Great Lakes Using a Three-way Coupled Modeling System, AGU Fall Meeting, Washington D.C. December 10-14, 2018

5. †Shi, Q and **Xue, P.** (2018), "Surface water temperature and wind divergence variability over the Great Lakes region", State of Lake Superior Conference, International Association for Great Lakes Research. Houghton, MI, October 9-12, 2018.

6. **Xue, P.**, Ye, X., Pal, J. S., Chu, P. Y. (2018) "Improve Regional Climate Modeling using the Great Lakes–Atmosphere Regional Model (GLARM)," Ocean Sciences Meeting 02-2018, American Geophysical Union, Portland, Oregon. February 12-16, 2018.

ii. Invited Presentations (presenter):

1. **Xue, P.** (2019). "Towards an Integrated Regional Earth System Modeling Platform for the Great Lakes Region" University of Notre Dame, Notre Dame, IN. November 19, 2019

2. **Xue, P.** (2019). "Two-way Atmosphere-Lake-Ice Coupled Regional Climate Simulation over the Great Lakes Region" Argonne National Lab, Lemont, IL. June 24, 2019

3. Auer, M. T.**, Xue, P.**, Kuzincski, A. (2018),"Managing Nuisance Cladophora Growth in the Great Lakes: Causes and Cures," US EPA, Ann Arbor, MI. March 13, 2018

4. **Xue, P.** (2016). "Improving the Simulation of Great Lakes in Regional Climate Modeling using Two-way Atmosphere-3D Lake Coupling." University Wisconsin-Madison, Madison, WI. February 4, 2016

5. **Xue, P.** (2016). "Simulation of Large Lakes in Regional Climate Modeling," NOAA - Great Lakes Environmental Research Laboratory, Ann Arbor, MI. January 29, 2016

6. **Xue, P.** (2015), EPA-Lake Superior Environmental Monitoring Collaborative meeting, "Hydrodynamic modeling of Lake Superior," Environmental Protection Agency, Houghton, MI. March 19, 2015

7. Meadows, G. A., Huckins, C. J., Marcarelli, A. M., **Xue, P.**, Group presentation to the **United States Senator**: Carl Levin, "USEPA-Great Lakes Restoration Initiative: Arresting the Spread of Eurasian Watermilfoil in Lake Superior," Great Lakes Research Center, Michigan Technological University Houghton, MI.

8. **Xue, P.** (2014), "Local feedback mechanisms of the shallow water regions around the Maritime Continent," Singapore MIT Alliance for Research and Technology Advisory Board Meeting, National University of Singapore, Singapore. July 12, 2014

9. **Xue, P.** (2014), "A Coupled regional ocean/atmosphere model for the Maritime Continent and local feedback mechanism in shallow water," Singapore MIT Alliance for Research and Technology, National University of Singapore, Singapore. July 24, 2014

10. **Xue, P.** (2012) Observing System Simulation Experiments (OSSEs) for Massachusetts Coastal Waters. College of Marine Sciences, Shanghai Ocean University, Shanghai, China. October 10, 2012

11. **Xue, P.** (2012) Ensemble-based Data Assimilation Technique and its Application to Massachusetts Coastal Waters. Department of Atmospheric and Oceanic Sciences, Peking University, Beijing, China. August 11, 2012.

RESEARCH GRANTS

A. Current Projects:

1. **Xue, P.** (PI) "*Cladophora*, Mussels and the Nearshore Phosphorus Shunt in Lake Michigan." Michigan Sea Grant. Period Covered: 2/1/2018-1/31/2021.
2. **Xue, P.** (PI) "Long-term Data Assimilative, Temperature and Currents Database for the Great Lakes, Lake Erie and Lake Michigan" National Oceanic and Atmospheric Administration (NOAA) pass through Cooperative Institute for Great Lakes Research (CIGLR). Period Covered: 10/01/2018-09/30/2020.
3. **Xue, P.** (PI**)** "Coastal Coupling in Large Lakes for Total Water Prediction" National Oceanic and Atmospheric Administration (NOAA) pass through Cooperative Institute for Great Lakes Research (CIGLR). Period Covered: 07/01/2019-02/28/2021.
4. **Xue, P.** (Institutional PI) "Evaluating and Advancing the Representation of Lake-Atmosphere Interactions and Resulting Heavy Lake-Effect Snowstorms Across the Laurentian Great Lakes Basin Within the NASA-Unified Weather Research and Forecasting Model." National Aeronautics and Space Administration (NASA). Period Covered: 7/26/2017-7/25/2021. **Collaborative project with UW-Madison, NASA, and UIUC.**
5. **Xue, P.** (PI) "Funded Joint Appointment with Argonne National Lab", Argonne National Laboratory. Period Covered 8/3/2020-8/2/2022
6. **Xue, P.** (PI) "Developing downscaled climate models to understand and forecast potential recruitment of Lake Michigan fishes" United States Geological Survey (USGS), period Covered: 11/1/2020-10/31/2021.
7. **Xue, P.** (Institutional Lead) "Coastal Observations, Mechanisms, and Predictions Across Systems and Scales – Great Lakes Modeling (COMPASS-GLM)" Department of Energy (DOE) pass through National Labs (led by PNNL) period Covered: 02/01/2021-01/31/2023.

8. **Xue, P.** (Co-PI) "An Integrated Physical-Social-Community (PSC) Approach for Sustainable Shore Protection, Beach Integrity, and Bluff/Dune Stabilization Along Lake Michigan" **Wisconsin -Michigan-Illinois/Indiana Joint Sea Grant Proposal**
9. **Xue, P.** (Co-PI, Institutional Lead) "Linking Process Model and Field Experiments to Forecast Algal Bloom Toxicity in Lake Erie." National Oceanic and Atmospheric Administration (NOAA) ECOHAB Program. Period Covered: 9/1/2017-8/31/2020. **Multi-institutional collaborative proposal led by OSU.**
10. **Xue, P.** (Co-PI) "Advancing Coastal Hazard Knowledge on Resiliency Alternatives" Michigan Department of Environment, Great Lakes, and Energy. Period Covered: 9/1/2017-8/31/2020.
11. **Xue, P.** (Co-PI) "Integration of the Advanced Algae Warning System GUI into OPG Operations" Ontario Power Generation. Period Covered: 03/01/2020-03/31/2021.
12. **Xue, P.** (Co-PI), "Adaptation of the Advanced Algae Warning System to Darlington Nuclear Generating Station: Phase 1" Ontario Power Generation. Period Covered: 07/20/2020-05/01/2021

B. Completed Projects:

1. **Xue, P.** (Co-PI) "An Early Warning System Targeting Water Intake Fouling by Cladophora at the OPG Pickering Nuclear Generating Station" Ontario Power Generation. Period Covered: 04/01/2019-03/01/2020.
2. **Xue, P.** (Chief Scientist for section B: transport and fate of oil.), "Independent Risk Analysis for the Straits Pipelines" State of Michigan. Period Covered: 01/12/2018-10/31/2018.
3. **Xue, P.** (Co-PI) "Lake Water Quality Modeling of Consent Decree Scenarios-Phase1". Wade Trim Group, Inc. Period Covered: 08/15/2018 - 10/30/2018.
4. **Xue, P.** (PI) "Modeling the Mussel-Phosphorus-Cladophora Dynamic in Lake Ontario." Town of Ajax, Ontario, Canada. Period Covered: 05/01/16-12/31/17.
5. **Xue, P.** (PI). "Development of FVCOM model of Sandusky Bay to support restoration design." LimnoTech. Period Covered: 09/01/2017 -08/31/2018.
6. **Xue, P.** (Co-PI) "*Cladophora* Monitoring and Modeling at Ajax, Ontario - Phase 3." Town of Ajax, Ontario, Canada. Period Covered: 8/13/2017-08/17/2018.
7. **Xue, P.** (Co-PI) "Integrated Clean Water Act Planning Evaluation, Northeast Ohio Regional Sewer District, Phases II-III." Northeast Ohio Regional Sewer District. Period Covered: 09/01/2013-04/30/2016.
8. **Xue, P.** (Co-PI) "Phosphorous and Cladophora in Lake Ontario." Town of Ajax, Ontario, Canada. Period Covered: 9/1/2014-12/31/2015.
9. **Xue, P.** (Co-PI) "Lake Erie Phosphorus Modeling." Environmental Protection Agency administered by Battelle Memorial Institute. Period Covered: 8/1/2014-07/15/2015.
10. **Xue, P.** (senior personnel), *et al.* "Category: B.1 Invasive Species Prevention and Control: Arresting the Spread of Eurasian Watermilfoil in Lake Superior. 2014-2015." Environmental Protection Agency. Period Covered: 01/01/2014-10/31/2016
11. **Xue, P.** (PI) "Development of a Hydrodynamic Modeling System for Lake Superior". Michigan Technological University Research Excellence Fund. Period Covered: 7/31/2014-12/31/2015.

PROFESSIONAL SERVICE

Associate Editor: Frontiers (Nature Publishing Group) in Marine Science: Coastal Ocean Processes (2014-present)
Conference Organizing Committee: 15th Estuarine and Coastal Modeling (ECM) conference (2018)
Conference Planning Committee: State of Lake Superior Conference, International Association for

Great Lakes Research (IAGLR) (2018)
Conference Program Committee: International Association for Great Lakes Research (IAGLR) (2021)
Conference Session Convener: Coastal & Estuarine Research Federation - Session CERF biannual conference (2015), International Association for Great Lakes Research (IAGLR) (2015, 2017, 2018)
Proposal Reviewer/Panel Member: Sea Grant, NOAA, NSF
Reviewer for Journals: 1) Climate Dynamics 2) Environmental Modelling & Software, 3) Advances In Water Resources, 4) Science of the Total Environment, 5) Journal of Hydrometeorology, 6) Journal of Geophysical Research-Oceans 7) Journal of Physical Oceanography, 8) PLOS ONE, 9) Journal of Hydrology, 10) Journal of Advances in Modeling Earth Systems, 11) Earth System Dynamics, 12) Journal of Marine Systems, 13) Journal of Great Lake Research, 14) Estuarine, Coastal and Shelf Science, 15) Journal of Applied Meteorology and Climatology, 16) Journal of Atmospheric and Oceanic Technology, 17) Ocean Dynamics, 18) Stochastic Environmental Research and Risk Assessment, 19) Applied Ocean Research, 20) Meteorology and Atmospheric Physics, 21)Journal of Coastal Research 22) Natural Hazards

PROFESSIONAL SOCIETIES

- American Geophysical Union (AGU)
- American Meteorological Society (AMS)
- Association for the Sciences of Limnology and Oceanography (ASLO)
- The Oceanography Society (TOS)
- International Association for Great Lakes Research (IAGLR)
- International Association for Hydro-Environment Engineering and Research (IAHR)
- Asia Oceania Geosciences Society (AOGS)

COURSE TAUGHT

1. CEE 5520: Hydrodynamic Modeling (Graduate course)
2. ATM/PH/CEE5680: Geophysical Fluid Dynamics (Graduate course)
3. CEE3620: Water Resources Engineering (Undergraduate core course)

STUDENT SUPERVISED AS PRINCIPAL ADVISOR

1. Ye, Xinyu (PhD, graduated) 2014 -2019
2. Huang, Chenfu (PhD Candidate) Fall 2014 -
3. Xing Zhou (PhD student) started Fall 2017 -
4. Jiaqi Chen (MS, graduated) 2015- 2017
5. Miraj Kayasth (MS student) Fall 2019 -

MEMBER OF THESIS COMMITTEES

1. Hamed Dare Ibrahim, PhD (2018) (CEE@MIT [Massachusetts Institute of Technology])
2. Anika Kuczynski, PhD (2017) (CEE@MTU)
3. Ting Bao, PhD (2018) (CEE@MTU)
4. Mohammad Alizadeh Fard, PhD student in-progress: (CEE@MTU)
5. Ankita Bakshi, MS (2018), CEE@MTU)
6. Nathan Zgnilec, MS (2015) (CEE@MTU)

7. Megan MacNeill, MS (2015) (CEE@MTU)
8. Michael Foster, MS (2019): (CEE@MTU)
9. Kevin Mcgee, MS (2020): (CEE@LMU [Loyola Marymount University])
10. Aditya Wagh, MS (2020): (MEEM@MTU)
11. Mahta Naziri Saeed, MS (2020): (CEE@MTU)

OTHER SUPERVISION

1. Qi Shi, Postdoc Associate, May 2018-March 2020.
2. Ryan Kibler, Undergraduate Research Assistant, 2014-2018.
3. Lily Kraft, Undergraduate Research Assistant, 2019.