

Jiaze Wang

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Education

Ph.D. in Oceanography, 2018
M.S. in Marine Geology, 2013
B.S. in Geology, 2010

Louisiana State University
Institute of Oceanology, Chinese Academy of Sciences
Ocean University of China

Research Interests

biogeochemical modeling; sediment dynamic observation and modeling; coastal geomorphology modeling; paleo sea-level reconstruction

Appointments

- 2022.8 – present **Assistant Professor**, School of Earth and Climate Sciences, University of Maine, Orono, ME
- 2021.1 – 2022.8 **PostDoctoral Researcher**, Environmental Science Division, Oak Ridge National Laboratory, Oak Ridge, TN
- 2018.7 – 2021.1 **PostDoctoral Researcher**, Horn Point Laboratory, University of Maryland Center for Environment Science, Cambridge, MD

Publications

- **Peer-Reviewed**

Xu, K.H., **Wang, J.Z.**, Li, C.Y., Bentley, S.J., Miner, M.D., 2021. Geomorphic and Hydrodynamic Impacts on Sediment Transport in the Inner Louisiana Shelf. *Geomorphology*. (Accepted)

Zhang, X.K., Meng, X.L., Li, C.Y., Shang, N., **Wang, J.Z.**, Xu, Y.P., Wu, T., Mugnier, C., 2021. Micro-topography mapping through terrestrial LiDAR in densely vegetated coastal environments: an adaptive method for terrain correction. *International Journal of Geo-Information*. (Accepted)

Dukhovskoy, D.S., Morey, S.L., Chassignet, E.P., Chen, X., Coles, V.J., Cui, L., Harris, C.K., Hetland, R., Manning, A., Stukel, M., Thyng, K., **Wang, J.Z.**, 2021. Development of the CSOMIO coupled ocean-oil-sediment-biology model. *Frontiers in Marine Science* 8.

Yang, H.F., Yang, S.L., Li, B.C., **Wang, J.Z.**, Zhang, Z.L., Xu, K.H., Huang, Y.G., Shi, B.W., 2021. Different survival potentials between the Yangtze and Mississippi deltaic wetlands under riverine sediment decline and sea-level rise. *Geomorphology* 381.

- Wang, J.Z.**, Xu, K.H., Bentley, S.J., White, C., Zhang, X.K., Liu, H.R., 2019. Degradation of the Plaquemines sub-delta and relative sea-level in eastern Mississippi deltaic coast during late Holocene. *Estuarine, Coastal and Shelf Science* 227.
- Restrepo, G.A., Bentley, S.J., **Wang, J.Z.**, Xu, K.H., 2019. Riverine Sediment Contribution to Distal Deltaic Wetlands: Fourleague Bay, LA. *Estuaries and Coasts* 42, 55-67.
- Li, A., Tsai, F.T.C., Xu, K.H., **Wang, J.Z.**, White, C.M., Bentley, S.J., Chen, Q.J., 2019. Modeling sediment texture of river-deltaic wetlands in the Lower Barataria Bay and Lower Breton Sound, Louisiana, USA. *Geo-Marine Letters* 39, 161-173.
- Wang, J.Z.**, Xu, K.H., Restrepo, G.A., Bentley, S.J., Meng, X.L., Zhang, X.K., 2018. The coupling of bay hydrodynamics to sediment transport and its implication in micro-tidal wetland sustainability. *Marine Geology* 405, 68-76.
- Wang, J.Z.**, Xu, K.H., Li, C.Y., Obelcz, J.B., 2018. Forces Driving the Morphological Evolution of a Mud-Capped Dredge Pit, Northern Gulf of Mexico. *Water* 10.
- Cui, X.Q., Bianchi, T.S., Kenney, W.F., **Wang, J.Z.**, Curtis, J.H., Xu, K.H., Savage, C., 2017. Carbon Dynamics Along a Temperate Fjord-Head Delta: Linkages With Carbon Burial in Fjords. *Journal of Geophysical Research-Biogeosciences* 122, 3419-3430.
- Xu, K.H., Mickey, R.C., Chen, Q., Harris, C.K., Hetland, R.D., Hu, K.L., **Wang, J.Z.**, 2016. Shelf sediment transport during hurricanes Katrina and Rita. *Computers & Geosciences* 90, 24-39.
- Wang, J.Z.**, Li, A.C., Xu, K.H., Zheng, X.F., Huang, J., 2015. Clay mineral and grain size studies of sediment provenances and paleoenvironment evolution in the middle Okinawa Trough since 17 ka. *Marine Geology* 366, 49-61.
- Wang, J.Z.**, Li, A., Huang, J., 2013. The Provenance of the sediments in the Central Okinawa Trough since the Holocene and the Environment Evolution. *Marine Geology & Quaternary Geology* 33, 105-114.
- **Conference proceeding**
Johnson, C., Chen, Q. J., Karimpour, A., Bentley, S.J., White, C., Xu, K.H., **Wang, J.Z.**, 2015. Geological and geotechnical characterization of coastal marshes in the Mississippi River Delta. In: *The Proceedings of the Coastal Sediments 2015*.

Teaching

- Beach and Coast (ERS 108, every spring)
- TBD (high level courses are coming soon)

Research Funding

- Gulf Coast Terrestrial Aquatic Interfaces Workshop: Climate Change and Disturbance Impacts, Climate Change Science Institute (ORNL) workshop grant, 2021(PI). Total cost: \$25,000.

- Quantifying vegetation resilient performance to changing environment within and among species in vulnerable coastal wetland. National Sea Grant and U.S. Coastal Research Program, 2022 (co-PI, Pending). Total cost: \$150,000.

Professional Services

- **Workshop co-chair:** “The Gulf coast terrestrial-aquatic interface: disturbances and climate change”, Climate Change Science Institute, Oak Ridge National Laboratory, 2021.
- **Session co-chair:** “Dynamic Systems: Human-Landscape Interactions Under Changing Environmental Conditions”, American Geophysical Union, Fall meeting, 2018, Washington, D.C.
- **Session co-chair:** “Coastal and Shelf Sediment Transport Processes and Products of the Northern Gulf of Mexico session”, Geological Society of America, South-Central meeting, 2016, Baton Rouge, LA
- **CEGO Academic seminar coordinator:** College of the Coast & Environment, LSU, 2014-2016
- **Panel Reviewer: Department of Energy (Office of Biological and Environmental Research)**
- **Journal Reviewer:** *Geophysical Research Letters; Geochemistry, Geophysics, Geosystems; Marine Geology; Estuarine, Coastal and Shelf Science; Estuaries and Coasts; Continental Shelf Research; Geomorphology; Water; Applied Clay Science*

Professional Society Memberships

The Oceanography Society
American Geophysical Union
The Geological Society of America
Society for Women in Marine Science
Mentoring Physical Oceanography Women to Increase Retention
Association for the Sciences of Limnology and Oceanography

Educational Services

UMCES-HPL open house outreach
CEGO Education and Outreach coordinator: College of the Coast & Environment, LSU
AGU Fall meeting T-shirt Design Competition (2016)