

## Zhou Liang

PhD candidate

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## Education

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2020 – current	<b>Ph.D.</b> in chemical oceanography at Florida State University, Tallahassee, FL. Advisor: Angela Knapp
2018 – 2020	<b>M.S.</b> in chemical oceanography at Florida State University, Tallahassee, FL. Advisor: Angela Knapp
2014 – 2018	<b>B.S.</b> in chemistry w/ marine concentration at Ocean University of China, Qingdao, China

## Professional Experience

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2020 – current	<b>Graduate Teaching Assistant.</b> Dept. of Earth, Ocean, and Atmospheric Science Florida State University, Tallahassee, FL.
2018 - current	<b>Graduate Research Assistant.</b> Dept. of Earth, Ocean, and Atmospheric Science Florida State University, Tallahassee, FL, Angela Knapp lab collaborated with Robert Letscher in the University of New Hampshire. Project: Dissolved organic phosphorus controls on marine nitrogen fixation and export production
2017 - 2018	<b>Undergraduate Research Assistant.</b> Key Laboratory of Marine Chemistry Theory and Technology, Ocean University of China, Qingdao, China. Yu Xin lab Project: Solid phase extraction of marine dissolved organic nitrogen
2017 summer	<b>Laboratory Technician.</b> Key Laboratory of Marine Chemistry Theory and Technology, Ocean

University of China, Qingdao, China. Guilin Zhang  
lab

Project: Measurements of methane in the ocean  
and Huanghe River

## Research Interests

Nitrogen and phosphorus cycling, especially in the ocean; inorganic and organic nutrient cycling in the ocean; dissolved organic nitrogen isotopic compositions; dissolved organic phosphorus concentration; marine data science.

## Publications

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| <b>2022</b> | <b>Liang, Z.</b> , McCabe, K., Fawcett, S.E., Forrer, H.J., Jeandel, C., Marconi, D., Planquette, H., Saito, M.A., Sohm, J.A., Thomas, R.K., Letscher, R.T., and A.N. Knapp, A global ocean dissolved organic phosphorus (DOP) concentration database (DOPv2021), Scientific Data, 9, 722, <a href="https://doi.org/10.1038/s41597-022-01873-7">https://doi.org/10.1038/s41597-022-01873-7</a> |
| <b>2022</b> | <b>Liang, Z.</b> , Letscher, R.T., and A.N. Knapp, Phosphate and iron stress control global surface ocean dissolved organic phosphorus concentrations; Nature Geosciences, 15(8), 651-657, <a href="https://doi.org/10.1038/s41561-022-00988-1">https://doi.org/10.1038/s41561-022-00988-1</a> .   |
| <b>2022</b> | Letscher, R.T., Wang, W.-L., <b>Liang, Z.</b> , and Knapp, A.N., Regionally variable contribution of dissolved organic phosphorus to marine annual net community production, Global Biogeochem. Cycles, 36, e2022GB007354. <a href="https://doi.org/10.1029/2022GB007354">https://doi.org/10.1029/2022GB007354</a>   |
| <b>2021</b> | Knapp, A. N., Letscher, R. T., <b>Liang, Z.</b> , DOP concentration observations from the global ocean between 1990 and 2021 (DOP N2 fixation and export production project). Biological and Chemical Oceanography Data Management Office (BCO-DMO) (2022). <a href="https://doi.org/10.26008/1912/bco-dmo.855139.3">https://doi.org/10.26008/1912/bco-dmo.855139.3</a>                        |
| <b>2021</b> | Yan, Z., Yang, N., <b>Liang, Z.</b> , Yan, M., Zhong, X., Zhang, Y., Xu, W. and Xin, Y., Active dissolved organic nitrogen cycling hidden in large river and environmental implications. Science of The Total Environment, 795, 148882 (2021). <a href="https://doi.org/10.1016/j.scitotenv.2021.148882">https://doi.org/10.1016/j.scitotenv.2021.148882</a>                                   |
| <b>2020</b> | <b>Liang, Z.</b> , Pan, Y., Zhu, S., Luo, C., Tan., L., Spatiotemporal distribution and influencing factors of total suspended particles in the Yangtze River Estuary adjacent sea area[J].Journal of Xiamen   |

University(Natural Science),2020,59(S1):50-55.<https://doi.org/10.6043/j.issn.0438-0479.202007117> (in Chinese)

- 2020** **Liang, Z.**, Pan, Y., Zhang, J., Dong, H., Tan., L., Data analysis of marine variables in the Yangtze River Estuary adjacent sea area in summer of 2016[J].Journal of Xiamen University(Natural Science),2020,59(S1):69-74.<https://doi.org/10.6043/j.issn.0438-0479.202007115> (in Chinese)
- 2020** Pan, Y., **Liang, Z.**, Wang, H., Wan, L., Tan, L., Ge, T., The distribution and influence factors of COD in the Yangtze River Estuary adjacent sea area[J].Journal of Xiamen University(Natural Science),2020,59(S1):63-68.<https://doi.org/10.6043/j.issn.0438-0479.202007116> (in Chinese)

## Field Work

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| <b>2019</b> | Cruise in the Gulf of Mexico, studying carbon, nitrogen, and iron cycling. 4 days, Vessel: R/V Weatherbird |
| <b>2018</b> | Cruise in the Jiaozhou Bay and Yellow Sea, 14 days, Vessel: R/V dongfanghong 2                             |
| <b>2016</b> | Cruise in Changjiang Estuary and coast investigation in zhoushan islands, Vessel: R/V Zhehaik 1            |

## Conferences and Workshops

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| <b>2023</b> | <b>Liang, Z.</b> , Letscher, R.T., and Knapp, A.N., Comparative surface ocean DOC:DON:DOP stoichiometry between the Atlantic and Pacific Oceans, The Sixth Xiamen Symposium on Marine Environmental Sciences. ( <b>virtual talk</b> ) |
| <b>2022</b> | <b>Liang, Z.</b> , Marconi, D, Sigman, D., & Knapp, A.. Dissolved Organic Nitrogen Concentration and d15N Distribution along a Zonal Transect in the South Pacific. 2022 Ocean Sciences Meeting. ( <b>virtual talk</b> )              |
| <b>2021</b> | <b>Liang, Z.</b> , Letscher, R.T., and Knapp, A.N., Phosphate and Iron Control Global Surface Ocean Dissolved Organic Phosphorus Concentrations. 2021 ASLO meeting. ( <b>virtual talk</b> )   |
| <b>2020</b> | <b>Liang, Z.</b> , Letscher, R.T., McCabe, K., Marconi, D.,   |

	Sigman, D.M., & Knapp, A.N., Dissolved organic phosphorus (DOP) distributions in the Eastern Indian Ocean and subtropical South Pacific Ocean. 2020 Ocean Sciences Meeting. <b>(poster)</b>
<b>2020</b>	Yan, Z., <b>Liang, Z.</b> , Zhong, X., Yan, M., & Xin, Y. ( Cycling of Dissolved Organic Nitrogen in a High Turbidity and High Dissolved Inorganic Nitrogen Content River-a case study in Yellow River, China. 2020 Ocean Sciences Meeting. <b>(poster)</b>
<b>2019</b>	Tutorial-based OCIM workshop, Woods Hole, MA, USA, June 2019. <b>(participant)</b>

## Professional Memberships

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American Geophysical Union (AGU), American Society for Limnology and Oceanography (ASLO), US Chess Federation (rating: 1772)

## Honors and Awards

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2016-2017	The Second Class Scholarship Award for Excellence in Academic Work (rmb 2000)
2015-2016	The Fifth Zhangzidao Scholarship Award for Excellent Students (rmb 5000)
2015-2016	The Second Class Scholarship Award for Excellence in Academic Work (rmb 2000)
2014-2015	The First Class Scholarship Award for Excellence in Academic Work (rmb 3000)