

Zhou Liang

PhD candidate

Dept. of Earth, Ocean, and Atmospheric Science

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Education

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

Professional Experience

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

China, Qingdao, China. Dr. Guilin Zhang lab
Project: Measurements of methane in the ocean
and Huanghe River

Research Interests

Nitrogen and phosphorus cycling in the ocean; inorganic and organic nutrient cycling in the ocean; dissolved organic nitrogen isotopic compositions; dissolved organic phosphorus concentration; Ocean biogeochemical modeling; ocean data science.

Publications

* denotes corresponding authors

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| 2023 | Liang, Z.* , Letscher, R.T., and Knapp, A. N., Global patterns of surface ocean dissolved organic matter stoichiometry. <i>Global Biogeochemistry Cycles</i> . (under review) |
| 2023 | Inomura K.* , Nishimura, Y., Armin, G., Letscher, RT., Liang, Z. , Pasquier, B., Lønborg, C., Deutsch, C., and Yoshizawa, S. Quantitative analysis of light harvesting by rhodopsin containing ocean prokaryotes. <i>Ecological Letters</i> . (under review) |
| 2022 | Liang, Z.* , 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 Knapp, A. N., A global ocean dissolved organic phosphorus (DOP) concentration database (DOPv2021), <i>Scientific Data</i> , 9, 722, https://doi.org/10.1038/s41597-022-01873-7 |
| 2022 | Liang, Z.* , Letscher, R.T., and Knapp, A. N., Dissolved organic phosphorus concentrations in the surface ocean controlled by both phosphate and iron stress; <i>Nature Geosciences</i> , 15(8), 651-657, https://doi.org/10.1038/s41561-022-00988-1 . |
| 2022 | Letscher, R.T.*, Wang, W.-L., Liang, Z. , and Knapp, A.N., Regionally variable contribution of dissolved organic phosphorus to marine annual net community production, <i>Global Biogeochemical Cycles</i> , 36, e2022GB007354. https://doi.org/10.1029/2022GB007354 |
| 2022 | Knapp, A. N., Letscher, R. T., Liang, Z.* , 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). https://doi.org/10.26008/1912/bco-dmo.855139.4 |

- 2021** Yan, Z., Yang, N., **Liang, Z.**, 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. <https://doi.org/10.1016/j.scitotenv.2021.148882>
- 2020** **Liang, Z.**, 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),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),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),59(S1):63-68.<https://doi.org/10.6043/j.issn.0438-0479.202007116> (in Chinese)

Field Work

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

Conferences and Workshops

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| 2023 | Chemical Oceanography Gordon Research Conference (GRC), Southern New Hampshire University, NH, United States. (poster)
Topic: "Dissolved organic phosphorus production and consumption in the global surface ocean" |
| 2023 | Chemical Oceanography Gordon Research Seminar (GRS), |

Southern New Hampshire University, NH, United States.
(invited talk)

Topic: "Dissolved organic phosphorus concentrations in the surface ocean controlled by both phosphate and iron stress"

2023

Luncheon Seminar, Xiamen University, Xiamen, China.
(invited talk)

Topic: "Thinking as a data scientist --- What controls dissolved organic phosphorus distribution in the global surface ocean?"

2023

Southern University of Science and Technology, Shenzhen, China. **(invited talk)**

Topic: "What controls dissolved organic phosphorus distribution in the global surface ocean?"

2023

Ocean University of China. Qingdao, China. **(invited talk)**

Topic: "What controls dissolved organic phosphorus distribution in the global surface ocean?"

2023

The Sixth Xiamen Symposium on Marine Environmental Sciences. **(virtual talk)**

Topic: "Comparative surface ocean DOC:DON:DOP stoichiometry between the Atlantic and Pacific Oceans"

2022

2022 Ocean Sciences Meeting. **(virtual talk)**

Topic: "Dissolved organic nitrogen concentration and d15N distribution along a zonal transect in the South Pacific"

2021

2021 ASLO meeting. **(virtual talk)**

Topic: "Phosphate and iron control global surface ocean dissolved organic phosphorus concentrations."

2020

2020 Ocean Sciences Meeting, San Deigo, CA, United States. **(poster)**

Topic: "Dissolved organic phosphorus (DOP) distributions in the eastern Indian Ocean and subtropical South Pacific Ocean"

2019

Tutorial-based Ocean Circulation Inverse Model (OCIM) workshop, Woods Hole, MA, United States. **(participant)**

Professional Memberships

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

Manuscript Referee

Marine Chemistry

Honors and Awards

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