Xiao Ge

Postdoctoral Research Associate Geochemical and Environmental Research Group (GERG) Department of Oceanography, College of Arts & Sciences Texas A&M University (TAMU) College Station, Texas, 77840 Tel : (979)587-1739 Email : gexiao@tamu.edu

Education:

- 2009.9 -2013.9 Ocean University of China, Marine Science, Bachelor of Science.
- 2014.9-2017.6 Ocean University of China, Physical Oceanography, Master-Doctor Combined Program graduate student.
- 2017.9-2022.12 Texas A&M University, Physical Oceanography, Doctoral graduate student.

Thesis:

• 2022 "Investigating Loop Current Deep Dynamics and Separation Events from a Coupled Ocean-Atmosphere Regional Model and In-situ Observations"

<u>Skills:</u>

- Programing languages: MATLAB, Python
- Data analysis with statistical methods (empirical orthogonal function, etc.) and machine learning techniques (self-organizing map, etc.)
- Numerical outputs validation and comparison
- Ocean dynamics in the Gulf of Mexico

Work Experience:

- 2011 Joined volunteer groups of Qingdao charity federation; volunteered at senior house
- 2013-2014 Participated in the poverty alleviation program; taught physics and geography in Zun Yi for one year
- 2023-present Postdoctoral Research Associate, Geochemical and Environmental Research Group (GERG), Texas A&M University (TAMU)

Activities:

- 2011 Founded the swimming club of Ocean University of China
- 2011 Went to the University of Rhode Island for an exchange program

- 2011-2013 Attended a student research develop program as a leader; conducted simulated experiment on west boundary current
- 2014-2017 Took part in several science conferences such as CLIVAR and a round table conference about the Yellow Sea ecosystem in Korea University; gave a presentation about climate change in the Yellow Sea Area
- 2017.9.22-2017.9.27 Participate in Harvey Rapid Response Cruise
- 2019.2.16-2019.2.21 Present a poster titled "*Characteristics of Texas Coastal Current from 2018 to 2019 from HF Radar Observations*" in Ocean Science Meeting 2020 at San Diego, California.
- 2019.3.03-2019.3.09 Participate in the second Whitecaps Cruise
- 2020.10.05-2020.10.14 Present a poster titled "*Characteristics of Texas Coastal Current from 2018* to 2019 from HF Radar Observations" in Global OCEANS 2020: Singapore-U.S. Gulf Coast
- 2021.4.20-2021.4.25 Participate in the first Ocean Acidification Crossroads Cruise
- 2021.8.10-2021.8.15 Participate in the second Ocean Acidification Crossroads Cruise (https://geonews.tamu.edu/news/2021/09/autonomous-glider-withstands-two-hurricanes-transmitsocean-data-tamu-research.php)
- 2022.2.24-2022.3.04 Present an oral presentation titled "Investigation of Loop Current and Loop Current Eddy Dynamics Using the Coupled Regional-Community Earth System Model with Data Assimilation" in Ocean Science Meeting 2022 online.
- 2022.10.25-2022.10.30 Participate in the third Ocean Acidification Crossroads Cruise
- 2022.12.02-2022.12.04 Participate in the fourth Ocean Acidification Crossroads Cruise
- 2023.02.27-2023.03.03 Participate in the fifth Ocean Acidification Crossroads Cruise
- 2023.08.16 As one of the three-person field team to deploy three Slocum Buoyancy Gliders and participate in the piloting of two of the Gliders for GCOOS National Hurricane Glider Program (being shore support team for recovery at the end of their missions)
- 2024.2.18-2024.2.23 Present an oral presentation titled "*Role of Midwater Mixed Waves in the Loop Current Separation Events from A Coupled Ocean-Atmosphere Regional Model and In-Situ Observations*" in Ocean Science Meeting 2024 at New Orleans, Louisiana.
- 2024.06.07 As one of the three-person field team to deploy two Slocum Buoyancy Gliders and participate in the piloting of those Gliders for the GCOOS National Hurricane Glider Program (being shore support team for recovery at the end of their missions)
- 2024.09.13 As one of the two-person field team to recover one Slocum Buoyancy Gliders been piloting for the GCOOS National Hurricane Glider Program (being shore support team for deployment)
- 2024.11.07 As one of the three-person field team to recover one Slocum Buoyancy Gliders been piloting for the GCOOS National Hurricane Glider Program (being shore support team for deployment)

Awards:

- 2012 Second-class Scholarship
- 2013 Graduated with Distinction
- 2013 Outstanding Graduation Thesis
- 2013 Second Prize of Middle School Geography High-quality Teaching Competition in Zun Yi
- 2014 Outstanding Volunteer of Zun Yi
- 2014 Outstanding Paper Award from Academic Forum of Ocean University of China
- 2015 Outstanding Graduate Student
- 2015 First-class Scholarship
- 2015 National Scholarship for Graduate Student
- 2017-2018 Donald & Melba Ross Graduate Scholarship
- 2018-2019 Donald & Melba Ross Graduate Scholarship
- 2019 Second place in the AGU 2019 Spring Virtual Poster Showcase
- 2019-2020 Webber Grad Fellowship
- 2020-2021 Sharp Graduate Scholarship
- 2021-2022 Donald & Melba Ross Graduate Scholarship
- 2022-2023 Sharp Graduate Scholarship

Publication:

- Lermusiaux, P.F.J., Haley, P.J. Jr., Mirabito, C., Mule, E.M., DiMarco, S.F., Dancer, A., X. Ge, Knap, A.H., Liu, Y., Mahmud, S., Nwankwo, U.C., Glenn, S., Miles, T.N., Aragon, D., Coleman, K., Smith, M., Leber, M., Ramos, R., Storie, J., Stuart, G., Marble, J., Barrose, P., Chassignet, E.P., Bower, A., Furey, H.H., Jaimes de la Cruz, B., Shay, L.K., Tenreiro, M., Pallas Sanz, E., Sheinbaum, J., Perez-Brunius, P., Wilson, D., van Smirren, J., Monreal-Jimenez, R., Salas-de-Leon, D.A., Contreras Tereza, V.K., Feldman, M., & Khadka, M. (2024). *Real-time Ocean Probabilistic Forecasts, Reachability Analysis, and Adaptive Sampling in the Gulf of Mexico*. IEEE OCEANS 2024 MTS/IEEE Halifax, Halifax, Nova Scotia, Canada, pp. 1-10. ISBN 979-8-3315-4008-1/24.
- Mule, E.M., Haley, P.J. Jr., Mirabito, C., DiMarco, S.F., Mahmud, S., Dancer, A., X. Ge, Knap, A.H., Liu, Y., Nwankwo, U.C., Glenn, S., Miles, T.N., Aragon, D., Coleman, K., Smith, M., Leber, M., Ramos, R., Storie, J., Stuart, G., Marble, J., Barros, P., Chassignet, E.P., Bower, A., Furey, H.H., Jaimes de la Cruz, B., Shay, L.K., Tenreiro, M., Pallas Sanz, E., Sheinbaum, J., Perez Brunius, P., Wilson, D., van Smirren, J., Monreal-Jimenez, R., Salas-de-Leon, D.A., Contreras Tereza, V.K., Feldman, M., & Khadka, M. (2024). *Real-time Probabilistic Reachability Forecasting for Gliders in the Gulf of Mexico*. IEEE OCEANS 2024 MTS/IEEE Halifax, Halifax, Nova Scotia, Canada, pp. 1-10. ISBN 979-8-3315-4008-1/24.
- DiMarco, S.F., Knap, A.H., Mahmud, S., X. Ge, Nwankwo, U., Kruger, A., Smith, M., Glenn, S.,

Miles, T., Smith, M.S., Monreal, R., Salas, D., Contreras, K., Tenreiro, M., Pallas, E., Lermusiaux,
P.F.J., Haley, P.J., Marabito, C., Ramos, R., & Storie, J. (2024). *The Mini Adaptive Sampling Experiment: Simultaneous Deployment of Multiple Ocean Observing Platforms in the Yucatan Channel.* IEEE OCEANS 2024 - MTS/IEEE Halifax, Halifax, Nova Scotia, Canada, pp. 1-10. ISBN 979-8-3315-4008-1/24.

- X. Ge, Liu, Y., DiMarco, S.F., Chang, P., Fu, D., Kurian, J., Hsu, C.Y., & Knap, A. (2024). Role of Midwater Mixed Waves in the Loop Current Separation Events from A Coupled Ocean-Atmosphere Regional Model and In-Situ Observations. 2024 Ocean Sciences Meeting.
- Mahmud, S., Wang, M.Y.D., X. Ge, Nwankwo, U., Hu, X., DiMarco, S.F., & Knap, A.H. (2024). *Quantitative Assessment of Salt-finger Diffusion in the Northwestern Gulf of Mexico*. 2024 Ocean Sciences Meeting.
- X. Ge (2022). Investigating Loop Current Deep Dynamics and Separation Events from a Coupled Ocean-Atmosphere Regional Model and In-Situ Observations. Texas A&M University.
- X. Ge, DiMarco, S.F., Whilden, K., Knap, A.H., & Hsu, C.Y. (2020). *Characteristics of Texas Coastal Current from 2018 to 2019 from HF Radar Observations*. Global Oceans 2020: Singapore– US Gulf Coast, 1-6.
- X. Ge, Liu, Q.Y., & Wang, L.Y. (2015). 西北太平洋副热带逆流与模态水的季节变化和年际变

1 [Seasonal and interannual variation of the subtropical countercurrent and mode water in the Northwestern Pacific]. Advances in Marine Science, 33(3), 279-287.

 Liu, Y.Z., Ou, Y.D., Chen, X., Ma, Y.X., & X. Ge. (2013). 西边界强化模拟实验 [Western Boundary Intensification Simulation Experiment]. 9th National Symposium on Experimental Fluid Mechanics, Hangzhou.