

PEIGEN LIN

Postdoctoral Investigator

Physical Oceanography Department, Woods Hole Oceanographic Institution

plin@whoi.edu | +1 (508)524-6373 | [Personal page](#) | [Google Scholar](#)

EDUCATION

Ph.D., *Physical Oceanography* September 2011 to December 2016

College of Ocean and Earth Science, Xiamen University, China

B.S., *Marine Technology* September 2006 to June 2010

College of Marine and Environmental Sciences, Tianjin University of Science and Technology, China

RESEARCH EXPERIENCE

Postdoctoral Investigator March 2017 to present

Woods Hole Oceanographic Institution, USA

Research Associate December 2016 to March 2017

State key Laboratory of Marine Environmental Science, Xiamen University, China

Guest Student September 2014 to December 2016

Woods Hole Oceanographic Institution, USA

Graduate Research Assistant September 2011 to December 2016

State key Laboratory of Marine Environmental Science, Xiamen University, China

RESEARCH INTERESTS

High latitude processes

Shelf-basin exchange

Atmosphere-ocean interaction

TEACHING/MENTORING EXPERIENCE

Teaching Assistant (Experimental Oceanography, Xiamen University) 2012

Mentoring

J. Li, master student, Xiamen University 2018-2020

F. Tian, master student, Hohai University 2018-2020

S. Li, Ph.D. student, University of Chinese Academy of Sciences 2020-2021

PUBLICATIONS

Journal Articles

[37] Ovall B., R. S. Pickart, **P. Lin**, P. Stabeno, T. Weingartner, M. Itoh, T. Kikuchi, E. Dobbins, S. Bell. Ice, wind, and water: Synoptic-scale controls of circulation in the Chukchi Sea, *Progress in Oceanography*, submitted.

[36] Li S., **P. Lin**, T. Dou, C. Xiao, M. Itoh, T. Kikuchi, D. Qin. Upwelling of Atlantic Water in Barrow Canyon, Chukchi Sea. *Journal of Geophysical Research: Oceans*, submitted.

- [35] Zhao S., E.R. Zettler, R.P. Bos, **P. Lin**, L.A. Amaral-Zettler, T.J. Mincer. Small microplastics in the ocean's interior. *Global Change Biology*, submitted.
- [34] Einarsson S.V., K. Lowry, **P. Lin**, R.S. Pickart, C. Ashjian, P.D. Chappell. Alexandrium on the Alaskan Beaufort Sea Shelf: Impact of upwelling. *Environmental Microbiology*, submitted.
- [33] Wang H., **Lin P. (Co-first author)**, R. S. Pickart, J. N. Cross. Summer surface CO₂ changes in the Bering and Chukchi Seas from 1989 to 2019. *Journal of Geophysical Research: Oceans*, submitted.
- [32] Dabrowski J., R. S. Pickart, D. Stockwell, **P. Lin**, M. Charette. Physical drivers of sediment-water interaction on the Beaufort Sea Shelf. *Deep-Sea Research I*, submitted.

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- [31] **Lin P.**, R. S. Pickart, K. Våge, J. Li (2021). Fate of warm Pacific water in the Arctic basin. *Geophysical Research Letters*.
- [30] **Lin P.**, R.S. Pickart, D. Fissel, K. Borg, H. Melling, F. Wiese (2021). On the nature of wind-forced upwelling and downwelling in Mackenzie Canyon, Beaufort Sea. *Progress in Oceanography*.
- [29] Anderson D. M., E. Fachon, R. S. Pickart, **P. Lin**, A. D. Fischer, M. L. Richlen, V. Uva, M. Brosnahan, L. McRaven, F. Bahr, K. Lefebvre, J. M. Grebmeier, S. Danielson, Y. Lyu, Y. Fukai (2021). Evidence for massive and recurrent toxic blooms of *Alexandrium catenella* in the Alaskan Arctic. *Proceedings of the National Academy of Sciences*.
- [28] Li J., **P. Lin**, R. S. Pickart, X. Yang (2021). Time dependent flow of Atlantic Water on the continental slope of the Beaufort Sea based on moorings. *Journal of Geophysical Research: Oceans*.
- [27] Tian F., R. S. Pickart, **P. Lin**, A. Pacini, G.W.K. Moore, P. Stabeno, T.J. Weingartner, M. Itoh, T. Kikuchi, E. Dobbins, S. Bell, R. A. Woodgate, Z. Wang (2021). Mean and seasonal circulation of the Eastern Chukchi Sea from moored timeseries in 2013-14. *Journal of Geophysical Research: Oceans*.
- [26] Leng H., M. A. Spall, R. S. Pickart, **P. Lin**, X. Bai (2021). Origin and fate of the Chukchi Slope Current using a numerical model and in-situ data. *Journal of Geophysical Research: Oceans*.
- [25] Pickart R. S., M. A. Spall, **P. Lin**, L. T. McRaven, K. R. Arrigo, J. M. Grebmeier (2021). Physical controls on the benthic biomass in Barrow Canyon, Chukchi Sea. *Journal of Geophysical Research: Oceans*.
- [24] Huang J., R.S. Pickart, R.X. Huang, **P. Lin**, A. Brakstad, F. Xu (2020), Sources and upstream pathways of the densest overflow in the Nordic Seas. *Nature Communications*.
- [23] **Lin P.**, R.S. Pickart, K. Jochumsen, M. Moritz, G.W.K. Moore, H. Valdimarsson, T. Fristedt (2020). Kinematic structure and dynamics of the Denmark Strait Overflow. *Journal of Physical Oceanography*.
- [22] Casanova-Masjoan M., M.D. Pérez-Hernández, R.S. Pickart, H. Valdimarsson, S. Olafsdottir, A. Macrander, D. Grisolia-Santos, D.J. Torres, S. Jónsson, K. Våge,

- P. Lin**, A. Hernández-Guerra (2020). Alongstream, seasonal and interannual variability of the North Icelandic Irminger Current and East Icelandic Current around Iceland. *Journal of Geophysical Research: Oceans*.
- [21] Li J., R.S. Pickart, **P. Lin**, F. Bahr, K.R. Arrigo, L. Juranek, X. Yang (2020). The Atlantic Water Boundary Current in the Chukchi Borderland and southern Canada Basin. *Journal of Geophysical Research: Oceans*.
- [20] **Lin P.**, R.S. Pickart, D. Fissel, E. Ross, J. Kasper, F. Bahr; D. Torres, J. O'Brien, K. Borg, H. Melling, F. Wiese (2020), Circulation in the vicinity of Mackenzie Canyon from a year-long mooring array. *Progress in Oceanography*.
- [19] Boury S., R.S. Pickart, P. Odier, **P. Lin**, M. Li, E. Fine, H.L. Simmons, J.A. MacKinnon, T. Peacock (2020), Whither the Chukchi Slope Current? *Journal of Physical Oceanography*.
- [18] Scott R., R.S. Pickart, **P. Lin**, A. Münchow, M. Li, D. Stockwell, J. Brearley (2019), Three-dimensional structure of a cold-core Arctic eddy interacting with the Chukchi Slope Current. *Journal of Geophysical Research: Oceans*.
- [17] Foukal N., R.S. Pickart, G.W.K. Moore, **P. Lin** (2019), Shelfbreak Downwelling in the Alaskan Beaufort Sea. *Journal of Geophysical Research: Oceans*.
- [16] Creamean J.M., J.N. Cross, R.S. Pickart, L. McRaven, **P. Lin**, A. Pacini, et al. (2019), Ice nucleating particles carried from below a phytoplankton bloom to the Arctic atmosphere. *Geophysical Research Letters*.
- [15] Renfrew I., R. S. Pickart, K. Våge, G. W. K. Moore, ... **P. Lin**, et al. (2019), The Iceland Greenland Seas Project. *Bulletin of the American Meteorological Society*.
- [14] **Lin P.**, R. S. Pickart, L.T. McRaven, K.R. Arrigo, F. Bahr, K.E. Lowry, D.A. Stockwell, C.W. Mordy (2019), Water mass evolution and circulation of the northeastern Chukchi Sea in summer: Implications for nutrient distributions. *Journal of Geophysical Research: Oceans*.
- [13] Huang J., R.S. Pickart, H. Valdimarsson, **P. Lin**, M.A. Spall, F. Xu (2019), Structure and Variability of the North Icelandic Jet from two years of mooring data. *Journal of Geophysical Research: Oceans*.
- [12] Spall M.A., R.S. Pickart, **P. Lin**, W. von Appen, D. Mastropole, H. Valdimarsson, T.W.N. Haine, M. Almansi (2019), Frontogenesis and variability in Denmark Strait and its influence on overflow water. *Journal of Physical Oceanography*.
- [11] Pickart R.S., C. Nobre, **P. Lin**, K.R. Arrigo, et al. (2019), Seasonal to mesoscale variability of water masses and atmospheric conditions in Barrow Canyon, Chukchi Sea. *Deep-Sea Research II*.
- [10] Pisareva M.N., R.S. Pickart, **P. Lin**, P.S. Fratantoni, T.J. Weingartner (2019), On the nature of wind-forced upwelling in Barrow Canyon. *Deep-Sea Research II*.
- [9] Li M., R.S. Pickart, M.A. Spall, T.J. Weingartner, **P. Lin**, G.W.K. Moore, Y. Qi (2019), Circulation of the Chukchi Sea shelfbreak and slope from moored timeseries. *Progress in Oceanography*.
- [8] **Lin P.**, R.S. Pickart, G.W.K. Moore, M.A. Spall, and J. Hu (2019), Characteristics and Dynamics of upwelling in the Alaskan Beaufort Sea based on six years of mooring data. *Deep-Sea Research II*.

- [7] Spall M.A., R.S. Pickart, M. Li, M. Itoh, **P. Lin**, T. Kikuchi, Y. Qi (2018), Transport of Pacific Water into the Canada Basin and formation of the Chukchi Slope Current. *Journal of Geophysical Research: Oceans*.
- [6] **Lin P.**, R.S. Pickart, D.J. Torres, A. Pacini (2018), Evolution of the freshwater Coastal Current at the southern tip of Greenland. *Journal of Physical Oceanography*.
- [5] **Lin P.**, R.S. Pickart, K.M. Stafford, G.W.K. Moore, D.J. Torres, F. Bahr, J. Hu (2016), Seasonal Variation of the Beaufort Shelfbreak Jet and its Relationship to Arctic Cetacean Occurrence. *Journal of Geophysical Research: Oceans*.
- [4] Våge K., R.S. Pickart, V. Pavlov, **P. Lin**, D.J. Torres, R. Ingvaldsen, A. Sundfjord, A. Proshutinsky (2016), The Atlantic Water boundary current in the Nansen Basin: transport and mechanisms of lateral exchange. *Journal of Geophysical Research: Oceans*.
- [3] **Lin P.**, J. Hu, Q. Zheng, Z. Sun, J. Zhu (2016), Observation of summertime upwelling off the eastern and northeastern coasts of Hainan Island, China. *Ocean Dynamics*.
- [2] **Lin P.**, P. Cheng, J. Gan, J. Hu (2016), Dynamics of wind-driven upwelling off the northeastern coast of Hainan Island. *Journal of Geophysical Research: Oceans*.
- [1] **Lin P.**, Z. Chen, J. Hu, J. Zhu, Z. Sun (2012), Variation characteristic of upwelling in Taiwan Strait and its relationship with wind in summer 2011. *Journal of Oceanography in Taiwan Strait*, 31(3), 307-316 (in Chinese with English abstract).

Book chapter

- [1] **Lin P.**, Gan, J., Hu, J. (2020). Coastal Upwelling in the Northern South China Sea. In J. Hu, C. Ho, L. Xie & Q. Zheng (Eds.), *Regional Oceanography of the South China Sea*. Singapore: World Scientific Publishing. DOI:10.1142/11461.

FIELDWORK

R/V <i>Sikuliaq</i> , Chukchi/Beaufort Seas, Arctic, 35 days	Oct-Nov 2020
USCGC <i>Healy</i> , Bering/Chukchi Seas, Arctic, 21 days	Aug 2019
USCGC <i>Healy</i> , Chukchi/Beaufort Seas, Arctic, 25 days	Oct-Nov 2018
USCGC <i>Healy</i> , Chukchi Sea, Arctic, 18 days	Aug 2018
NRV <i>Alliance</i> , Iceland/Greenland Seas, 45 days	Feb-Mar 2018
USCGC <i>Healy</i> , Chukchi Sea, Arctic, 21 days	Aug-Sep 2017
R/V <i>Yanping-II</i> , Taiwan Strait, 3 days	May 2017
R/V <i>Armstrong</i> , North Atlantic, 37 days	Aug-Sep 2016
R/V <i>Bjarni</i> , Iceland Sea and Denmark Strait, 15 days	Aug 2015
Fishing boat, Xinghua Bay, Fujian, 10 days	Jun 2014
R/V <i>Yanping-II</i> , Xiamen Bay, Fujian, 1 day	Feb 2014
Fishing boat, Sansha Bay, Fujian, 12 days	Jan 2013
R/V <i>Haiyang-II</i> , Xiamen Bay, Fujian, 2 days	Dec 2012
Fishing boat, Liu'ao Bay, Fujian, 3 days	Sep 2012
R/V <i>Dongfanghong-II</i> , South China Sea, 26 days	Jul-Aug 2012
R/V <i>Yanping-II</i> , Taiwan Strait, 20 days	Jul 2011

HONORS AND AWARDS

Outstanding Graduate , Xiamen University, China	2017
National Graduate Scholarship , Ministry of Education, China	2016
Merit Student , Xiamen University, China	2016
University Scholarship , Xiamen University, China	2016
Joint Program Scholarship , China Scholarship Council, China	2014
National Graduate Scholarship , Ministry of Education, China	2012

SEMINARS AND CONFERENCE PRESENTATIONS (*INVITED)

- Kinematic Structure and Dynamics of the Denmark Strait Overflow from Ship-Based Observations. 2021. **Oral**, PO seminar, Woods Hole Oceanographic Institution, USA. (virtual)
- * Evolution and fate of Pacific Summer Water after exiting the Chukchi shelf. 2021. **Oral**, Tianjin University, China. (virtual)
- On the nature of wind-forced upwelling and downwelling in Mackenzie Canyon, Beaufort Sea. 2021. **Oral**, Alaskan Marine Science Symposium, USA. (virtual)
- * Kinematic Structure and Dynamics of the Denmark Strait Overflow from Ship-Based Observations. 2021. **Oral**, Ocean University of China, Qingdao, China. (virtual)
- Evolution and fate of the Pacific water in the western Arctic in summer. 2021. **Oral**, Southern University of Science and Technology, Shenzhen, China. (virtual)
- * Water Mass Evolution and Circulation of the Northeastern Chukchi Sea in Summer. 2020. **Oral**, University of Chinese Academy of Sciences, Beijing, China. (virtual)
- Kinematic structure and dynamics of the Denmark Strait Overflow. 2020. **Oral**, the High Latitude Physical Oceanography Retreat, Bretton Woods, USA.
- Kinematic structure and dynamics of the Denmark Strait Overflow. 2020. **Poster**, Ocean Sciences Meeting, San Diego, USA.
- Kinematic structure and dynamics of the Denmark Strait Overflow. 2020. **Oral**, the High Latitude Physical Oceanography Retreat, Bretton Woods, USA.
- Water Mass Evolution and Circulation of the Northeastern Chukchi Sea in Summer: Implications for Nutrient Distributions. 2019. **Oral**, Sun Yat-sen University, Zhuhai, China.
- Circulation in the Eastern Beaufort Sea from a year-long mooring array. 2019. **Oral**, WHOI Postdoctoral Symposium, Woods Hole, USA.
- Circulation and hydrography of northeastern Chukchi Sea in summer. 2019. **Oral**, The Fourth Xiamen Symposium on Marine Environmental Sciences, Xiamen, China. (**Convener of the Arctic session**)
- Evolution of the freshwater Coastal Current at the southern tip of Greenland. 2018. **Oral**, Arctic-Subarctic Ocean Fluxes, Paris, France.
- Characteristics and Dynamics of Upwelling in the Alaskan Beaufort Sea. 2018. **Poster**, Alaskan Marine Science Symposium, Anchorage, USA.
- Upwelling in the Alaskan Beaufort Sea. 2017. **Oral**, PO seminar, Woods Hole Oceanographic Institution, USA.

Evolution of the freshwater coastal current at the southern tip of Greenland. 2017. **Oral**, Irminger Sea Regional Science Workshop, National Oceanography Centre, UK.

Evolution of the freshwater coastal current at the southern tip of Greenland. 2017. **Oral**, WHOI Postdoctoral Symposium, Woods Hole, USA.

Characteristics and Dynamics of upwelling in the Alaskan Beaufort Sea. 2017. **Oral**, International Forum for Young Scholars in Marine Science, Shanghai, China.

Characteristics and Dynamics of upwelling in the Alaskan Beaufort Sea based on six years of mooring data. 2017. **Oral**, The Third Xiamen Symposium on Marine Environmental Sciences, Xiamen, China.

Dynamics of wind-driven upwelling off the northeastern coast of Hainan Island. 2016. **Poster**, Ocean Sciences Meeting, New Orleans, USA.

Seasonal variation of the Beaufort Shelfbreak Jet and its relationship to Arctic cetacean occurrence. 2016. **Oral**, Ocean Sciences Meeting, New Orleans, USA.

Observation of summertime upwelling off the eastern and northeastern coasts of Hainan Island. 2013. **Oral**, UNESCO/IOC, Qingdao, China.

WORKSHOPS/MEETINGS

Alaskan Marine Science Symposium, virtual conference, USA.	Jan 2021
Ocean Sciences meeting, San Diego, CA.	Feb 2020
High Latitude Physical Oceanography Retreat, Bretton Woods, NH.	Feb 2020
Workshop on Descriptive Physical Oceanography, South China Sea Institute of Oceanology, Guangzhou, China.	Nov 2019
WHOI Postdoctoral Symposium, Woods Hole, USA.	Oct 2019
MARES Synthesis Meeting, Seattle, USA.	Oct 2019
The Fourth Xiamen Symposium on Marine Environmental Sciences, Xiamen University, Xiamen, China.	Jan 2019
High Latitude Physical Oceanography Retreat, Bretton Woods, NH.	Oct 2018
Arctic-Subarctic Ocean Fluxes meeting, Paris, France.	Apr 2018
Alaskan Marine Science Symposium, Anchorage, USA.	Jan 2018
Irminger Sea Regional Science Workshop, National Oceanography Centre, Southampton, UK.	Nov 2017
WHOI Postdoctoral Symposium, Woods Hole, USA.	Oct 2017
Workshop on Adiabatic Motions, Heaving Modes and Isopycnal Layer Analysis, Xiamen University, China.	Apr 2017
The Third Xiamen Symposium on Marine Environmental Sciences, Xiamen University, Xiamen, China.	Jan 2017
Ocean Outlook, Woods Hole Oceanographic Institution, USA.	Apr 2016
Geodynamics seminar series: ice-ocean interaction, Woods Hole Oceanographic Institution, Woods Hole, USA.	Feb-May 2016
Workshop on South China Sea, Woods Hole Oceanographic Institution, Woods Hole, USA.	Jan 2016
The First Xiamen Symposium on Marine Environmental Sciences, Xiamen University, Xiamen, China.	Jan 2014

Training Course on Air-Sea Interactions and Modeling, UNESCO/IOC-ODC Center,
Qingdao, China. Aug 2013

Workshop on wind-driven circulation, South China Sea Institute of Oceanology,
Guangzhou, China. Nov 2012

The advanced workshop on coastal physical oceanography, Second Institute of
Oceanography, Hangzhou, China. Sep 2012

Workshop on data analysis methods in physical oceanography, Second Institute of
Oceanography, Hangzhou, China. Sep 2011

PROFESSIONAL SOCIETY MEMBERSHIP

American Geophysical Union; American Meteorological Society

SERVICE

Journal Reviewer for *Journal of Geophysical Research: Oceans*, *Geophysical Research Letters*, *Scientific Reports*, *Ocean Science*, *Acta Oceanologica Sinica*, *Terrestrial Atmospheric and Oceanic Sciences*, *PLOS ONE*.