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## Education

1984	B.A. in Physics, Oberlin College
1990	Ph.D. in Oceanography University of California, San Diego
2012	Masters of Science, Computer Science and Information Systems University of North Carolina Wilmington

## Employment

1990-1991	Foreign Postdoctoral Fellow Tohoku University, Sendai, Japan
1992-1994	Assistant Researcher University of Hawaii at Manoa
1994- present	Assistant, Associate and full Professor, Department of Physics & Physical Oceanography University of North Carolina at Wilmington
2005	Visiting Associate Professor Tohoku University, Sendai, Japan

## Professional Affiliations

[American Geophysical Union](#), [The Oceanography Society](#), [Oceanographic Society of Japan](#);  
[European Geosciences Union](#), NASA Ocean Salinity Science Team

## Publications

(not peer-reviewed) Westbrook, E., Bingham, F. M., Brodnitz, S., Farrar, J. T., Rodriguez, E., & Zappa, C., (2024). Submesoscale Ocean Dynamics Experiment (S-MODE) Data Submission Report. Technical Report. Woods Hole Oceanographic Institution, WHOI-2024-03, [doi:10.1575/1912/69362](https://doi.org/10.1575/1912/69362)

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Drushka, K., E. Westbrook, F. M. Bingham, P. Gaube, and others (2024). “Salinity and Stratification at the Sea Ice Edge (SASSIE): An oceanographic field campaign in the Beaufort Sea”. *Earth System Science Data*. [doi:10.5194/essd-2023-406](https://doi.org/10.5194/essd-2023-406)

Chi, N.-H., Thompson, E. J., Chen, H., Shcherbina, A., Bingham, F., & Rainville, L. (2023). Spatiotemporal variability of rainfall and surface salinity in the Eastern Pacific Fresh Pool: A joint in situ and Satellite analysis during the SPURS-2 field campaign. *Journal of Geophysical Research: Oceans*, 128, e2022JC019599. doi: [10.1029/2022JC019599](https://doi.org/10.1029/2022JC019599)

Chkrebti, O. A., and F. M. Bingham, (2023) Automatic Detection of Rainfall at Hourly Time Scales from Mooring Near-Surface Salinity in the Eastern Tropical Pacific. *Artif. Intell. Earth Syst.*, 2, 220009, doi: [10.1175/AIES-D-22-0009.1](https://doi.org/10.1175/AIES-D-22-0009.1)

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Fournier, S., F. M. Bingham, C. González-Haro, A. Hayashi, K. Carlin, S. Brodnitz, V. González-Gambau, M. Kuusela (2023) Quantification of Aquarius, SMAP, SMOS and Argo-based gridded sea surface salinity product sampling errors. *Remote Sens.* 2023, 15(2), 422; doi:[10.3390/rs15020422](https://doi.org/10.3390/rs15020422)

Guimbar, S.; Reul, N.; Sabia, R.; Herlédan, S.; Khoury Hanna, Z.E.; Piollé, J.-F.; Paul, F.; Lee, T.; Schanze, J.J.; Bingham, F.M.; et al. The Salinity Pilot-Mission Exploitation Platform (Pi-MEP): A Hub for Validation and Exploitation of Satellite Sea Surface Salinity Data. *Remote Sens.* 2021, 13, 4600. doi:[10.3390/rs13224600](https://doi.org/10.3390/rs13224600)

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J. T. Farrar *et al.*, "S-MODE: The Sub-Mesoscale Ocean Dynamics Experiment," *IGARSS 2020 - 2020 IEEE International Geoscience and Remote Sensing Symposium*, 2020, pp. 3533-3536, doi:[10.1109/IGARSS39084.2020.9323112](https://doi.org/10.1109/IGARSS39084.2020.9323112)

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Bingham, F. M., S. Brodnitz and L. Yu (2021). Sea Surface Salinity Seasonal Variability in the Tropics from Satellites, Gridded in situ Products and Mooring Observations. *Remote Sensing* 13(1), 110; doi:[10.3390/rs13010110](https://doi.org/10.3390/rs13010110).

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## **Grant Funding**

Salinity and Stratification at the sea Ice Edge (SASSIE). PI Kyla Drushka. NASA/University of Washington, \$272,407

Satellite Sea Surface Salinity Sampling Error. NASA Ocean Salinity Science Team. PI Severine Fournier, NASA/JPL, August 2019. \$155,028

S-MODE Participation, submitted March 2019. From NASA AMES. \$254,994.

SPURS-IS Supplement. From Jet Propulsion Laboratory. \$38,000.

Subfootprint Variance and Surface Salinity Extreme Values as Indicators of Air-sea Interaction. NASA Ocean Salinity Science Team. Co-investigator: Oksana Chkrebti, Ohio State University. \$373,167

Salinity Stratification in the Eastern Tropical Pacific and its Influence on Air-sea Interaction. Submitted to NASA SPURS-2 Synthesis, May 2018. PI: Janet Sprintall. Proposal was submitted from UC San Diego and no funds were requested for UNCW.

Multi-scale Data Assimilation, Forecasting and Modeling in Support of SPURS-2. From NASA. Co-Is Z. Li and P. Li, NASA JPL. \$100,500.

The SPURS-2 Information System (SPURS-IS). From NASA. Co-I's, Z. Li and P. Li, NASA JPL. \$426,892.

SPURS Field Campaign Analysis Phase. From NASA. PI: T. Farrar (WHOI). \$50,000 (UNCW portion). 1/1/2014-6/30/2015.

The SPURS Data Management System. From NASA. Co-Is, Yi Chao and Peggy Li, NASA JPL. \$342,042. 1/1/2011 – 12/31/2014.

Statistical Evaluation of Sea Surface Salinity from Aquarius. From NASA. Co-I, Montserrat Fuentes, NCSU. \$210918. 10/1/2009 – 9/30/2012.

SE Atlantic Marine Monitoring and Prediction Center: 2002 Coastal Ocean Research and Monitoring Program. From NOAA. Multiple co-I's. 920,900. 2002-2003.

SE Atlantic Marine Monitoring and Prediction Center: 2001 Coastal Ocean Research and Monitoring Program. From NOAA. Multiple co-I's. 925,000. 2001-2002.

Coastal Ocean Monitoring in the South Atlantic Bight. From NOAA. Multiple co-I's. \$730,000. 1999-2000.

Coupling of Gulf Stream Water Intrusions with Postlarval Settlement of Snapper-Grouper and Lobster at a Midshelf Reef, Onslow Bay, NC. From NURP/NOAA. Co-I David Lindquist, UNCW. \$27997. 2000.

Short-term Invitation Fellowship. From Japan Society for the Promotion of Science, for travel and subsistence during fellowship. 1999.

Water Mass Variations in the Western Equatorial Pacific. From NSF for \$113,000. 1994-1996.

The Cape Hatteras Gulf Stream Front as an Aggregator of the Pelagic Stages of Tuna and Mackerel: Sampling with Light-traps Across the Frontal Zone. From NOAA/NURP for \$2500. 1996.

Coupling of Gulf Stream Intrusions and Spring-summer Arrival of Presettlement Stages of Snapper-Grouper Complex Species at a Midshelf reef, Southern Onslow Bay, North Carolina. From NOAA/CIFO for \$24,961. 1995-1996.



The Structure and Dynamics of the Current Systems North of the Hawaiian Ridge. From NSF for \$229,000. Co-I Bo Qiu, U. Hawaii. 1994-1997.

The Hawaii Ocean Time-series: WOCE Component. From NSF for \$1,690,674. Co-I Roger Lukas, U. Hawaii. 1994-1997.

## **Datasets published**

### SPURS-1

SPURS PROJECT, Fred Bingham. 2015. SPURS Field Campaign ADCP Products. Ver. 1.0. PO.DAAC, CA, USA. Dataset accessible at <https://doi.org/10.5067/SPUR1-ADCP0>

SPURS PROJECT, Fred Bingham. 2015. SPURS-1 Field Campaign Waveglider Data Products. Ver. 1.0. PO.DAAC, CA, USA. Dataset accessible at <https://doi.org/10.5067/SPUR1-GLID3>

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## SPURS-2

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