

# Ying-Chih Fang

Email: ying-chih.fang@awi.de

Personal website: <http://thefang22.com/>

## RESEARCH FIELD

Physical Oceanography, High-latitude Oceanography, Shelf and Coastal Oceanography, and Internal Waves

## EDUCATION

**University of Alaska Fairbanks, Fairbanks, Alaska, USA** (Jan 2012–Dec 2017)

Ph.D. in Physical Oceanography, Institute of Marine Science

Dissertation: Circulation and Dynamics on the Northeastern Chukchi Sea Shelf

Advisor: Dr. Thomas Weingartner

**National Taiwan University, Taipei, Taiwan** (Sep 2005–Jun 2007)

M.S. in Physical Oceanography, Institute of Oceanography

Thesis: Mode-2 Internal Solitary Wave in the Shelf Break Zone of Northern South China Sea

Advisor: Dr. Tswen-Yung Tang

**National Cheng-Kung University, Tainan, Taiwan** (Sep 2001–Jun 2005)

B.A. in Earth Science, Department of Earth Science

## PEER-REVIEWED PUBLICATIONS

**Fang, Y.-C.**, R. A. Potter, H. Statscewich, T. J. Weingartner, P. Winsor, and B. K. Irving (2017), Surface Current Patterns in the Northeastern Chukchi Sea and Their Response to Wind Forcing. *Journal of Geophysical Research: Oceans*, 122(12), doi:10.1002/2017JC013121.

Weingartner, T. J., **Y.-C. Fang**, P. Winsor, E. Dobbins, R. A. Potter, H. Statscewich, and K. Borg (2017), The Summer Hydrographic Structure of the Hanna Shoal Region on the Northeastern Chukchi Sea Shelf: 2011–2013. *Deep Sea Research Part II: Topical Studies in Oceanography*, 144, 6–20.

**Fang, Y.-C.**, T. J. Weingartner, R. A. Potter, P. Winsor, and H. Statscewich (2015), Quality Assessment of HF Radar–Derived Surface Currents Using Optimal Interpolation. *Journal of Atmospheric and Oceanic Technology*, 32, 282–296.

Yang, Y. J., **Y.-C. Fang**, T. Y. Tang, and S. R. Ramp (2010), Convex and Concave Types of Second Baroclinic Mode Internal Solitary Waves. *Nonlinear Processes in Geophysics*, 17(6), 605–614, doi:10.5194/npg-17-605-2010.

Yang, Y. J., **Y.-C. Fang**, M.-H. Chang, S. R. Ramp, C.-C. Kao, and T. Y. Tang (2009), Observations of Second Baroclinic Mode Internal Solitary Waves on the Continental Slope of the Northern South China Sea. *Journal of Geophysical Research*, 114(C10), C10003, doi:10.1029/2009JC005318.

## PAPER IN PREPARATION

**Fang, Y.-C.**, T. J. Weingartner, E. L. Dobbins, P. Winsor, H. Statscewich, R. A. Potter, T. Mudge, C. A. Stoudt, and K. Borg, Low-frequency Flow Variability of the Hanna Shoal Region in the Northeastern Chukchi Sea, *in prep.*

## PROFESSIONAL EXPERIENCE

### **University of Alaska Fairbanks, Fairbanks, Alaska, USA**

Graduate Research Assistant in Institute of Marine Science (Jan 2012–Nov 2017)

Assisted in the deployment, maintenance, and troubleshooting of high-frequency radar systems and remote power systems in Arctic Alaska. Participated in interdisciplinary research cruises aboard icebreaker Healy in the Chukchi Sea. My primary duties were in the processing, analyses, and interpretation of physical oceanographic data sets, including wind-ocean responses, high-frequency radar data quality assessment, and regional circulation dynamics.

### **National Taiwan University, Taipei, Taiwan**

Project Research Assistant in Institute of Oceanography (Apr 2009–Dec 2011)

Configured and maintained high-frequency radar systems for the Taiwan Navy. Duties also included analyzing sea surface current data and writing reports.

Project Research Assistant in Institute of Oceanography (Sep 2008–Apr 2009)

Designed and prepared moorings for a multi-disciplinary study of Kuroshio.

Graduate Research Assistant in Institute of Oceanography (Jul 2005–Jun 2007)

Assisted with sea-going projects and analyzing data.

## RECENT CONFERENCE PRESENTATIONS

**Fang, Y.-C.**, R. A. Potter, H. Statscewich, and T. J. Weingartner (2017), Surface Current Patterns in the Northeastern Chukchi Sea and Their Response to Wind Forcing, Alaska Marine Science Symposium, Anchorage, Alaska, USA.

**Fang, Y.-C.**, T. J. Weingartner, R. A. Potter, C. Stoudt, and E. L. Dobbins (2016), The Circulation Structure Around Hanna Shoal on the Northeastern Chukchi Sea Shelf, Ocean Sciences Meeting, New Orleans, Louisiana, USA.

**Fang, Y.-C.**, T. J. Weingartner, R. A. Potter, H. Statscewich, P. Winsor, and S. Danielson (2014), Mapping the Northeastern Chukchi Sea Surface Currents and Their Dynamical Response Under Different Environmental Conditions, Ocean Sciences Meeting, Honolulu, Hawaii, USA.

## HONORS AND AWARDS

- Government scholarship for overseas study in physical oceanography (3-years) issued by Ministry of Education Taiwan, 2011
- Dean's Award in the College of Science issued by National Taiwan University, 2007

## RESEARCH SKILLS

Proficient with methods for analyzing large data sets, such as band filtering, objective analysis, empirical orthogonal functions, wavelet analysis, spectral analysis, and the Self-Organizing Map.

- Data analysis using Matlab.
- Data visualization using Generic Mapping Tools (GMT).
- Experience with numerical ocean models.
- Sea-going field work.