

## **Yu-Chia Chang (張育嘉)**

Research Center for Environmental Changes (RCEC), Academia Sinica

No. 128, Sec. 2, Academia Rd., Nankang, Taipei, Taiwan

Office Tel: +886-6-3032280#235

Email: yuchiachang@gate.sinca.edu.tw

### **EDUCATION**

Ph. D.	National Sun Yat-sen University, Taiwan	Physical Oceanography	January, 2008
M. S.	National Sun Yat-sen University, Taiwan	Physical Oceanography	January, 2001
B. S.	National Sun Yat-sen University, Taiwan	Oceanography	June, 1998

### **EMPLOYMENT**

2016-2020	Postdoctoral Fellow, Department of Hydraulic and Ocean Engineering, National Cheng Kung University, Tainan, Taiwan
2014-2016	Assistant Research Scholar, Department of Marine Biotechnology and Resources, National Sun Yat-sen University, Kaohsiung, Taiwan
2008-2013	Postdoctoral Fellow, Institute of Undersea Technology, National Sun Yat-sen University, Kaohsiung, Taiwan

### **RESEARCH INTERESTS**

- \*Marine Energy
- \*Ocean current power generation
- \*Strong currents under tropical cyclones
- \*Fuel-saving Ship Route

### **INVITED TALKS, AND SERVICE**

- \*Reviewer of manuscript for *Journal of Physical Oceanography*, 2012
- \*Speech, Institute of Undersea Technology, National Sun Yat-sen University, Kaohsiung, Taiwan, 2012
- \*Reviewer of manuscript for *Journal of Navigation*, 2014
- \*Reviewer of manuscript for *Journal of Geophysical Research – Oceans*, 2014
- \*Speech, Institute of Marine Environmental Science Technology, National Taiwan Normal University, Taipei, Taiwan, 2015
- \*Reviewer of manuscript for *Environmental Fluid Mechanics*, 2015
- \*Reviewer of manuscript for *ISPRS International Journal of Geo-Information*, 2016
- \*Reviewer of manuscript for *Terrestrial, Atmospheric and Oceanic Sciences*, 2016
- \*Member of master thesis oral defense committee, National Sun Yat-sen University, Kaohsiung, Taiwan, 2017

- \*Reviewer of manuscript for *Meteorology and Atmospheric Physics*, 2017
- \*Reviewer of manuscript for *Marine Structures*, 2017
- \*Reviewer of manuscript for *Journal of Navigation*, 2018
- \*Reviewer of manuscript for *Nature Energy*, 2018
- \*Reviewer of manuscript for *Journal of Navigation*, 2019
- \*Reviewer of manuscript for *Terrestrial, Atmospheric and Oceanic Sciences*, 2019
- \*Reviewer of manuscript for *Nature Energy*, 2019
- \*Reviewer of manuscript for *Renewable energy*, 2019
- \*Reviewer of manuscript for *Atmosphere*, 2020
- \*Reviewer of manuscript for *Renewable energy*, 2020
- \*Reviewer of manuscript for *Energies*, 2020
- \*Reviewer of manuscript for *Marine Pollution Bulletin*, 2020
- \*Reviewer of manuscript for *Journal of Marine Science and Engineering*, 2020
- \*Reviewer of manuscript for *Renewable energy*, 2020
- \*Reviewer of manuscript for *Renewable energy*, 2021

#### LIST OF PUBLICATIONS (\*: corresponding author)

##### Journal Papers & Book Chapters

1. **Chang, Y.-C.**, R.-S. Tseng\*, and C.-T. Liu, 2008, Evaluation of Tidal Removal Method Using Phase Average Technique from ADCP Surveys along the Peng-Hu Channel in the Taiwan Strait. *Terrestrial, Atmospheric and Oceanic Sciences*, **19**, 433-443.
2. **Chang, Y.-C.**, R.-S. Tseng\*, and L. R. Centurioni, 2010, Typhoon-induced strong surface flows in the Taiwan Strait and Pacific. *Journal of Oceanography*, **66**, 175-182.
3. **Chang, Y.-C.**, G.-Y. Chen\*, R.-S. Tseng, and P. C. Chu, 2012, Effect of Cylindrically-Shaped Atoll on Westward Propagating Anticyclonic Eddy – a Case Study, *IEEE Geoscience and Remote Sensing Letters*, **9**, 43-46.
4. Tseng, R.-S.\*, H.-J. Shao, **Y.-C. Chang**, and L. Centurioni, 2012, Turbulent mixing of the Kuroshio Water southeast of Taiwan, *Kuroshio Science*, **6-1**, 27-34.
5. **Chang, Y.-C.**, G.-Y. Chen\*, R.-S. Tseng, L. R. Centurioni, and P. C. Chu, 2012, Observed near-surface currents under high wind speeds, *Journal of Geophysical Research*, **117**, C11026, doi:10.1029/2012JC007996.
6. **Chang, Y.-C.**, G.-Y. Chen\*, R.-S. Tseng, L. R. Centurioni, and P. C. Chu, 2013, Observed near-surface flows under all tropical cyclone intensity levels using drifters in the northwestern Pacific, *Journal of Geophysical Research*, **118**, 2367-2377.
7. **Chang, Y.-C.**, R.-S. Tseng\*, G.-Y. Chen, P. C. Chu, and Y.-T. Shen, 2013, Ship routing utilizing strong ocean currents, *Journal of Navigation*, **66**, 825-835.
8. **Chang, Y.-C.\***, P. C. Chu, R.-S. Tseng, and L. R. Centurioni, 2014, Observed near-surface currents under four super typhoons, *Journal of Marine Systems*, **139**, 311-319.
9. **Chang, Y.-C.\***, R.-S. Tseng, and P. C. Chu, 2015, Site selection of ocean current power generation from drifter measurements, *Renewable energy*, **80**, 737-745.
10. **Chang, Y.-C.**, R.-S. Tseng\*, P. C. Chu, H.-J. Shao, 2016, Global Energy-saving Map of

Strong Ocean Currents, *Journal of Navigation*, 69, 75-92.

11. **Chang, Y.-C.**, R.-S. Tseng\*, P. C. Chu, J.-M. Chen and L. R. Centurioni, 2016, Observed strong currents under global tropical cyclones, *Journal of Marine Systems*, 159, 33-40.

12. Tseng, R.-S.\* , **Y.-C. Chang**, and P. C. Chu, 2017, Use of global satellite altimeter and drifter data for ocean current resource characterization, *Marine Renewable Energy – Resource Characterization and Physical Effect*, Pages 159-177, ISBN:978-3-319-53534-0, Springer (Book Chapter).

13. Cheng, Y.-T., R.-S. Tseng\*, **Y.-C. Chang**, and J.-M. Chen, 2018, Detecting cyclonic eddies induced by global super typhoons by using satellite altimetry, *Journal of Photogrammetry and Remote Sensing*, 23(1), 15-24, in Chinese.

14. Shao, H.-J., R.-S. Tseng\*, R.-C. Lien, **Y.-C. Chang**, and J.-M. Chen, 2018, Turbulent mixing on sloping bottom of an energetic tidal channel, *Continental Shelf Research*, 166, 44-53.

15. Shen, Y.-T., J.-W. Lai, L.-G. Leu, Y.-C. Lu, J.-M. Chen, H.-J. Shao, H.-W. Chen, K.-T. Chang, C.-T. Terng, **Y.-C. Chang**, and R.-S. Tseng\*, 2018, Applications of ocean currents data from high-frequency radars and current profilers to search and rescue missions around Taiwan, *Journal of Operational Oceanography*, <https://doi.org/10.1080/1755876X.2018.1541538>.

16. Chen, G.-Y.\* , C.-C., Liu, and **Y.-C. Chang**, (2022). Reciprocal Green's functions and the quick forecast of storm surges. *Earth and Space Science*, 9, e2021EA001885. <https://doi.org/10.1029/2021EA001885>