

An-Yi Huang (He/Him/His)

Research Assistant (full time), Department of Earth and Life Science, University of Taipei

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EDUCATION

- 2017 **M.S.**, Department of Marine Environmental Informatics (Oceanography), National Taiwan Ocean University, Keelung, Taiwan
Thesis title: “Simulation of Typhoon Surges around the Taiwan Coast” (Advisor: Dr. Yao-Tsai Lo)
- 2016 **B.S.**, Department of Marine Environmental Informatics (Oceanography), National Taiwan Ocean University, Keelung, Taiwan
Certificate for Geoscience Program, College of Ocean Science and Resource, National Taiwan Ocean University, Keelung, Taiwan
Certificate for Applied GIS Program, College of Ocean Science and Resource, National Taiwan Ocean University, Keelung, Taiwan

EMPLOYMENT

- 10/2018–present **Research Assistant** (full time), Department of Earth and Life Science, University of Taipei (Supervisor: Dr. Chi-Cherng Hong); Research Center for Environmental Change, Academia Sinica (cooperate)
- 02/2018–09/2018 **Research Assistant** (full time), National Science and Technology Center for Disaster Reduction (Supervisor: Dr. Chi-Cherng Hong)
- 09/2015–01/2016 **Teaching Assistant** (course: *Introduction to Computers*), Department of Marine Environmental Informatics, National Taiwan Ocean University (Academic Advisor: Dr. Yao-Tsai Lo)
- 07/2014–08/2014 **Summer Internship**, Marine Meteorology Center, Central Weather Bureau (Academic Advisor: Dr. Shih-Jen Huang)

PUBLICATIONS

Manuscripts (under review):

1. **Huang, A.-Y.**, C.-C. Hong, C.-A. Chen, H.-H. Hsu, W.-L. Tseng, P.-C. Hsu, and M.-H. Lo, 2022: Increasing Effect of the Warming Trend on Extreme Mei-Yu Rainfall in East Asia: Evidence Based on Two Extremes in 1998 and 2020. Submitted to *Weather and Climate Extremes*.
2. Hong, C.-C., **A.-Y. Huang**, H.-H. Hsu, W.-L. Tseng, M.-M. Lu, C.-C. Chang, 2022: Linkage between Record Floods in Pakistan and a Severe Heatwave in China in the Boreal Summer of 2022. Submitted to *npj Climate and Atmospheric Science*.

Peer-reviewed papers:

1. Kao, P.-K., C.-C. Hong, **A.-Y. Huang**, and C.-C. Chang, 2022: Intensification of Interannual Cross-Basin SST Interaction between the North Atlantic Tripole and Pacific Meridional Mode since the 1990s. *Journal of Climate*, **35**(18), 5967–5979. <https://doi.org/10.1175/JCLI-D-21-0594.1>
2. Wu, Y.-K., C.-C. Hong, T. Li, and **A.-Y. Huang**, 2022: Role of Low-Frequency Wind Variability in Inducing WWBs during the Onset of Super El Niños. *Climate Dynamics*, published online. <https://doi.org/10.1007/s00382-022-06322-0>
3. Sullivan, A., W. Zhong, G. L. Eusebi Borzelli, T. Geng, C. Mackallah, B. Ng, C.-C. Hong, W. Cai, **A.-Y. Huang**, and R. Bodman, 2021: Generation of westerly wind bursts by forcing outside the tropics. *Scientific Reports*, **11**, 912. <https://doi.org/10.1038/s41598-020-79655-7>

4. Wu, Y.-K., **A.-Y. Huang**, C.-K. Wu, C.-C. Hong, and C.-C. Chang, 2020: Effect of Warm SST in the Subtropical Eastern North Pacific on Triggering the Abrupt Change of the Mei-Yu Rainfall over South China in the Early 1990s. *Journal of Climate*, **33**(2), 657–673. <https://doi.org/10.1175/JCLI-D-18-0292.1>

AWARDS & HONORS

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| 2016 | <i>Scholarship</i> of Distinguished Student (sponsored by class year 71 alumni) |
| 2015 | <i>Scholarship</i> of Five-Year BS-MS Program (offered by National Taiwan Ocean University) |
| 2014 | <i>Excellence Award</i> of Club Evaluation (Chinese Music Club) |
| 2013 | <i>Excellence Award</i> of National Student Competition of Music (Bamboo-Flute) |

RESEARCH EXPERIENCES & INTERESTS

East Asian Winter/Summer Monsoon and Extreme Weather

- Comparison of possible factors (e.g., the intensity and location of the western North Pacific subtropical high; SST in Indian, Pacific, and Atlantic Oceans) that induced the devastating floods (Mei-Yu/Baiu front rainfall) in East Asia during early summer throughout historical records, especially the year of 1998 and 2020.
- Using the products of high-resolution climate models (amip-type experiments: MRI-AGCM by MRI/JMA and GFDL-HiRAM by RCEC/AS) to investigate the difference of frequency, period, and intensity of cold surges in East Asia during boreal winter between historical and RCP8.5 scenarios (including evaluation of model performance). [Participated in the project “*Taiwan Climate Change Information and Adaptation Knowledge Platform (TCCIP)*.”]

Other Interests

- How tropical–extratropical interactions, atmospheric and oceanic large-scale circulations, and land-sea-ice-air interactions would change under anthropogenic warming?
- What is the past, present, and future of the ocean’s role in climate change?
- How does the regional extreme weather link to the global large-scale circulation change?

PRESENTATIONS

1. **Huang, A.-Y.**, C.-C. Hong, Y.-K. Wu, and C.-C. Chang, 2022: Can PMM Always be a Precursor and Predictor of ENSO? 2022 (5th) *Climate Hotspots in Action (CHiA) Forum*, Taipei, Taiwan. *Poster*.
2. **Huang, A.-Y.**, C.-C. Hong, H.-H. Hsu, W.-L. Tseng, P.-C. Hsu, and M.-H. Lo, 2022: Effect of Enhanced Diabatic Heating over Maritime Continent and Extreme Weather in East Asia-Western North Pacific in Early Summer. 2022 *Taiwan Geosciences Assembly: Conference on Weather Analysis and Forecasting*, Taipei, Taiwan. *Poster*.
3. **Huang, A.-Y.**, C.-C. Hong, H.-H. Hsu, W.-L. Tseng, P.-C. Hsu, and M.-H. Lo, 2021: Combined Effect of High Sea Surface Temperatures in Tropical Atlantic and Indian Ocean and Record South Asian High on Extreme Mei-Yu Rainfall over Yangtze–Huai River Valley and Japan in Early Summer of 2020. 2021 *Climate Hotspots in Action Forum and Year of Maritime Continent Workshop (CHiAXYMC)*, Online Meeting. *Poster*.
4. **Huang, A.-Y.**, C.-C. Hong, H.-H. Hsu, Y.-K. Wu, M.-Y. Lee, W.-L. Tseng, and C.-C. Chang, 2020: Comparison of Yangtze–Huai River Valley Floods between 1998 and 2020. 3rd *Climate Hotspots in Action (CHiA) Forum*, Taipei, Taiwan. *Poster*.
5. **Huang, A.-Y.**, C.-C. Hong, and Y.-K. Wu, 2019: Enhancement of Interdecadal Linkage between the Tropical Central Pacific and the Extratropical North Pacific SSTs in the Late 1980s. 2019 *Taiwan Geosciences Assembly: Conference on Weather Analysis and Forecasting*, Taipei, Taiwan. *Poster*.
6. **Huang, A.-Y.** and Yao-Tsai Lo, 2017: Simulation of Typhoon Surges around the Taiwan Coast. *Conference on Weather Analysis and Forecasting*, Taipei, Taiwan. *Poster*.

SKILLS & LANGUAGES

Programming MATLAB (data processing, analysis, and visualization), NCL (data processing and analysis), GrADS

	(visualization), Python (data processing) and Fortran (numerical modeling: ICTP-AGCM SPEEDY & POM)
Software	Microsoft Office (Word, PowerPoint, Excel, & Access) and Photoshop
Languages	Mandarin (native), English (TOEFL iBT: 90/120), Taiwanese Hokkien, and Taiwanese Hakka

SELECTED EXTRACURRICULAR

2014–2015	Director of volleyball division of 31 th Earth Cup joint sport competition
2014–2015	Captain of male volleyball team
2013–2014	General director of Traditional Orchestra & Vice director of Chinese Music Club
2010–2011	Coordinator & performer (Bamboo-Flute) of Shiang-Wang Chinese Music Benefit Concert (cooperated with <i>The Red Cross Society</i>)

REFERENCES

Chi-Cherng Hong	Dean of College of Science, University of Taipei, Taiwan Professor of Department of Earth and Life Science, University of Taipei, Taiwan Email: cchong@utapei.com.tw (official); hong0202@gmail.com Website: http://utweb.utapei.edu.tw/~climate/english/ ORCID: https://orcid.org/0000-0002-9732-249X
Yao-Tsai Lo	Assistant Professor of Department of Marine Environmental Informatics, National Taiwan Ocean University, Keelung, Taiwan Email: lo@mail.ntou.edu.tw Website: https://mei.ntou.edu.tw/p/405-1079-63542,c3989.php?Lang=en
Shih-Jen Huang	Associate Professor of Department of Marine Environmental Informatics, National Taiwan Ocean University, Keelung Taiwan Email: huangsj@email.ntou.edu.tw Website: https://mei.ntou.edu.tw/p/405-1079-63565,c3989.php?Lang=en