Curriculum Vitae - I-I Lin (林依依)

Updated: April 2024

Dept. of Atmospheric Sciences, National Taiwan University, Taipei, Taiwan; E-mail: iilin@ntu.edu.tw

Education:

- B.Sc. in Atmospheric Science, National Taiwan University, Taiwan (1989)
- Ph.D. in Remote Sensing, University of Cambridge, UK (1995)

Current position and relevant experience:

- 2023-Present: University Chair Professor, National Taiwan University, Taipei, Taiwan.
- 2013-Present: Life-Time Distinguished Professor, Dept. of Atmospheric Sciences, National Taiwan University (NTUAS), Taipei, Taiwan.
- 2014-2017: Chair, Dept. of Atmospheric Sciences, National Taiwan University, Taipei, Taiwan.
- 2010-Present: Professor; 2006-2010: Associate Prof.; 2004-2006: Assistant Prof., NTUAS.
- 2011: Director of International Affairs Center (INTERACT), College of Science, NTU.
- 2000-2004: Assistant Research Scientist, National Center for Ocean Research, Taiwan.
- 1995-1999: Research Scientist, Centre for Remote Imaging, Sensing & Processing (CRISP), National University of Singapore, Singapore.

Research Interests:

- Tropical Cyclone-Ocean Interaction: Weather, Climate, and Global Warming Scale
- Synergy of Multi-Advanced Remote Sensing for Air-Sea Physical/Biogeochemical Interaction Research

Awards and honors:

- 2024: Fellow, American Meteorological Society (AMS)
- 2023: US National Academies of Sciences, Engineering, and Medicine Panel, 101st Meeting of the Ocean Studies Board
- 2023: Featured in "Female Power of Taiwan" on the International Women's Day (8 March 2023), Ministry of Foreign Affairs, Taiwan
- 2023: Editor's Award, American Meteorological Society (AMS)- Bulletin of the American Meteorological Society (BAMS).
- 2022- Present: UN/GOOS (United Nations/Global Ocean Observing System)-Tropical Cyclones Ocean Observations and Forecasts Exemplar Steering Committee
- 2021-: World's top 2% Scientists (Stanford Univ.)
- March 2022: National Chair Professorship Award, Taiwan (The highest academic award in Taiwan, Nation-wide award crossing all physical science disciplines, 3 winners a year)
- March 2021: The 14th Taiwan Outstanding Women in Science Award (1 winner every 2 years, nation-wide award crossing all physical sciences disciplines)
- 2018: Fellow, Meteorological Society of Taiwan
- 2017: Academic Award, Ministry of Education, Taiwan
- 2015, 2011: Outstanding Research Award, Ministry of Science and Technology, Taiwan (2 times)

- 2009: Outstanding Teaching Award, National Taiwan University
- 2007: Ten outstanding Young Women Award, Taiwan (1 winner every 2 years for science discipline)
- 2005: Ta-You Wu Memorial Award for Young Scientists, National Science Council, Taiwan. \
- 2005: Taiwan Academia Sinica's Research Award for Young Scientists
- 2004: American Geophysical Union (AGU) START Young Scientist Award

Highlight, Cover, Press:

- 2024: Featured, 'Women's History Month', American Meteorological Society Social Media.
- 2021: Lead author (invited): Chapter on Global Warming, ENSO and Tropical Cyclones, in American Geophysical Union's centennial celebration monograph, 'El Niño Southern Oscillation in a Changing Climate (eds M. J. McPhaden, A. Santoso, W. Cai)', one of the 4 recommended AGU, 2021.
- 2017: Cover, Journal of Geophysical Research: Oceans
- 2014: Spotlight author, State of Climate Report 2013, NOAA, USA
- 2014: Featured and interviewed in the special documentary 'Mega Disaster' of Japan's NHK
- 2013: Research on Super typhoon Haiyan highlighted by Science
- 2013: Image of the Month, AVISO Satellite Altimetry, French Space Agency, CNES
- 2013: One of the Three Major Research Achievements of the Division of Mathematics and Physical Sciences, Academia Sinica, Taiwan
- 2009: Twice (February and March) featured by NASA with official press release for research on Indian Ocean Killer Cyclone Nargis (2008), also reported by the USA Today and other press
- 2008: Featured by the International Scientific Committee on Ocean Research (SCOR)'s Surface Ocean Lower Atmosphere Study (SOLAS)
- 2004: Reported in NASA's 10-years Anniversary of Earth Observation
- 2003: Research highlighted in Nature: News and Views in Brief, 7 August, 2003, vol. 425, no. 6949, pp. 630, 'Oceanography: Bloom in Cyclone'
- 2003: Research highlighted in Nature: News and Views in Brief, 13 March, 2003, vol. 422, no. 6928, pp. 132, 'Atmospheric Science: Quick, quick, slow'
- 2002: Press Conference with NASA 'Latest Ocean Winds Research Creates a Stir Typhoons a boon for Ocean life', Fall Meeting, American Geophysical Union, US

Synergetic Activities:

- 2022- Present: UN/GOOS (United Nations/Global Ocean Observing System)-Tropical Cyclones Ocean Observations and Forecasts Exemplar Steering Committee
- June 2021: Invited Formal Seminar, Geophysical Fluid Dynamics Laboratory/National Oceanic and Atmospheric Administration (GFDL/NOAA), Princeton USA
- Invited annual contributor, NOAA State of Climate Report: 2008-
- 2014: Advisor, Gold Medal (Chen Yu-Hsin), the 2014 Intel ISEF Award in the Earth and Planetary Science discipline, LA, USA
- Lead Investigator (Taiwan delegation) Impact of Typhoon on Pacific Field Campaign (ITOP, 2008-2012), the largest international field campaign on tropical cyclones in the western North Pacific.

- Committee: long-term outreach program to promote STEM for female students in Taiwan.
- Long-term (9 year) mentorship and caring of student with severe depression.
- Reviewers: Nature, Science, J. Climate, GRL, MWR, JGR, Nature Communications, JPO, and more.

Selected Publications

- Jin, Fei-Fei*, Shoude Guan, Jiwei Tian*, <u>I-I Lin</u>*, et al., Ocean Internal Tides Suppress Tropical Cyclones in the South China Sea, *Nature Comm.*, 2024. ACCEPTED. (IF: 16.6)
- Kang, Sok Kuh*, Sung-Hun Kim, <u>I-I Lin</u> et al., The North Equatorial Current and Rapid Intensification of Super Typhoons, *Nature Comm.*, Vol. 15, 1742, doi: 10.1038/s41467-024-45685-2, 2024. (IF: 16.6).
- <u>Lin, I-I*</u> et al., Poleward Migration as Global Warming's Possible Self-Regulator to Restrain Future Western North Pacific Tropical Cyclone's Intensification, *npj Climate and Atm. Sci.*, 2023 (IF: 9).
- Camargo, S. J., Hiroyuki Murakami, Nadia Bloemendaal, Savin Chand, Medha S. Deshpande, Christian Dominguez-Sarmiento, Juan Jesús González-Alemán, Thomas R. Knutson, <u>I-I Lin</u> et al., Report for the 10th World Meteorological Organization (WMO)'s International Workshop on Tropical Cyclones: Tropical Cyclones and Climate Change, *IWTC-10 report*, 2022. (Invited)
- Gao, Cong, Lei Zhou*, Chunzai Wang, <u>I-I Lin</u>, and Raghu Murtugudde, Unexpected limitation of tropical cyclone genesis by subsurface tropical central-north Pacific during El Niño, *Nature Communications*, Vol. 13, 7746, doi: 10.1038/s41467-022-35530-9, Dec. 2022. (IF: 16.6).
- Bringas, F., G. J. Goni, <u>I-I Lin</u>, and J. A. Knaff, Tropical Cyclone Heat Potential [in "State of the Climate in 2021"], *Bulletin of the American Meteorological Society*, Vol. 103, No. 8, S246-S248, doi: 10.1175/BAMS-D-22-0069.1., Aug. 2022. (IF: 8).
- Lin, I-I*, et al., ENSO and Tropical Cyclones. In *El Niño Southern Oscillation in a Changing Climate* (eds M. J. McPhaden, A. Santoso, W. Cai). American Geophysical Union., Chap. 17, pp. 377-408, doi: 10.1002/9781119548164.ch17, Oct. 2020 (First Published), 2021(Copyright Year). (Invited Chapter, AGU Centennial Celebration Monograph, one of the 4 Books from AGU as special COP26 Showcase)
- Lin, I-I* et al., A Tale of Two Rapidly-Intensifying Supertyphoons: Hagibis (2019) and Haiyan (2013), Bulletin of the American Meteorological Society, Vol. 102, No. 9, E1645–E1664, doi: 10.1175/BAMS-D-20-0223.1, Sep. 2021. (IF: 8).
- Braun, Scott A., Heather Archambault, <u>I-I Lin</u> et al., Ninth WMO International Workshop on Tropical Cyclones: Intensity Change: External Influences, *IWTC-9 report*, 2018. (Invited)
- Pun, Iam-Fei*, <u>I-I Lin</u> et al., Influence of the Size of Supertyphoon Megi (2010) on SST Cooling, *Monthly Weather Review.*, Vol. 146, No. 3, p. 661-677, doi:10.1175/MWR-D-17-0044.1, Mar. 2018. (IF: 3.2).
- <u>Lin, I-I</u>*, M.-M. Lu and M.-D. Cheng, Taiwan in the bullseye of several major Typhoons [in "State of the Climate in 2016"], *Special Supplement to BAMS*, Vol. 98, No. 8, S124-S125, Aug. 2017. [Invited]
- Huang, H.-C., J. Boucharel, <u>I-I Lin</u>*, F.-F. Jin et al., Air-sea fluxes for Hurricane Patricia (2015):..., J. Geophys. Res. Oceans, 122, 6076-6089, doi:10.1002/2017JC012741, Aug., 2017. [JGR:Ocean 122(8) Cover]
- Huang, P., <u>I-I Lin</u>* et al., Change in Ocean Subsurface Environment to Suppress Tropical Cyclone Intensification under Global Warming, *Nat Commun*, Vol. 6, 7188, doi:10.1038/ncomms8188, May 2015.

- <u>Lin, I-I</u>* and J.C.L. Chan, Recent Decrease in Typhoon Destructive Potential and Global Warming Implications, *Nat Commun*, Vol. 6, 7182, doi:10.1038/ncomms8182, May 2015.
- <u>Lin, I-I</u>*, I.-F. Pun and C.-C. Lien, 'Category-6' Supertyphoon Haiyan in Global Warming Hiatus: Contribution from Subsurface Ocean Warming, *Geophys. Res. Lett.*, doi:10.1002/2014GL061281, Dec. 2014. [Science highlight, EOS highlight, Japan NHK Special Documentary]
- Jin, F.-F.*, J. Boucharel, <u>I-I Lin</u>, Eastern Pacific Tropical Cyclones Intensified by El Niño Delivery of Subsurface Ocean Heat, *Nature*, Vol. 516, p 82-85, doi:10.1038/nature13958, Dec. 2014.
- D'Asaro, E.A.*, P.G. Black, L.R. ..., <u>I-I Lin</u> et al., Impact of Typhoons on the Ocean in the Pacific: ITOP, *BAMS*, 95, p.1405-1418, doi:10.1175/BAMS-D-12-00104.1, Sep, 2014.
- Pun, I.-F., <u>I-I Lin</u>*, and M.-H. Lo, Recent Increase in High Tropical Cyclone Heat Potential Area in the Western North Pacific Ocean, *Geophys. Res. Lett.*, 40, p 4680-4684, doi:10.1002/grl.50548, Sep., 2013.
 [Science highlight, French AVISO Altimetry highlight]
- Lin, I-I*, P. Black et al, An ocean coupling potential intensity index for tropical cyclones, *Geophys. Res. Lett.*, Vol. 40, Issue 9, p. 1878-1882, doi:10.1002/grl.50091, May, 2013. [Reviewed by Sobel et al. Science 2016]
- <u>Lin, I-I</u>*, G. J. Goni, et al., Ocean Heat Content for Tropical Cyclone Intensity Forecasting and Its Impact on Storm Surge, *Nat Hazards*, Vol. 66, Issue 3, p 1481-1500, doi:10.1007/s11069-012-0214-5, 2013.
- <u>Lin, I-I</u>*, C. Hu et al., Fertilisation Potential of Volcanic Dust in the Low Nutrient Low Chlorophyll Western North Pacific ..., Global Biogeochemical Cycles, Vol. 25, doi:10.1029/2009GB003758, 2011.
- <u>Lin, I-I</u>*, I.-F. Pun, and C.-C. Wu, Upper Ocean Thermal Structure and the Western North Pacific Category-5 Typhoons Part II:, *Mon. Wea. Rev.*, doi:10.1175/2009MWR2713.1, 2009.
- <u>Lin, I-I</u>* et al., Warm Ocean Anomaly, Air Sea Fluxes, and the Rapid Intensification of Tropical Cyclone Nargis (2008), *Geophys. Res. Lett.*, doi:10.1029/2008GL035815, Feb. 2009. [Twice NASA highlight]
- <u>Lin, I-I</u>*, C.-C. Wu et al., Upper-Ocean Thermal Structure and the Western North Pacific Category 5 Typhoons. Part I: ..., *Mon. Wea. Rev.*, doi:10.1175/2008MWR2277.1, 2008.
- Wu, C.-C.*, C.-Y. Lee, and <u>I-I Lin</u>, The Effect of the Ocean Eddy on Tropical Cyclone Intensity, *J. Atmos. Sci.*, Vol. 64, p. 3562-3578, doi:10.1175/JAS4051.1, Oct. 2007.
- Pun, I.-F., <u>I-I Lin</u>* et al., Validation and Application of Altimetry-derived Upper Ocean Thermal ..., *IEEE Trans Geosci Remote Sens*, doi:10.1109/TGRS.2007.895950, Jun. 2007.
- Lin, I-I, C.-C. Wu*, K. Emanuel et al., The interaction of Supertyphoon Maemi (2003) with a warm ocean eddy, *Mon. Wea. Rev.*, Vol. 133, No. 9, p. 2635-2649, doi: 10.1175/MWR3005.1, Sep. 2005.
- <u>Lin, I-I</u>* et al., New evidence for enhanced ocean primary production triggered by tropical cyclone, *Geophys. Res. Lett.*, Vol. 30, No. 13, 1718, doi:10.1029/2003GL017141, Jul. 2003. [Nature, CNN, Associate Press highlight]
- <u>Lin, I-I</u>* et al., Satellite observations of modulation of surface winds by typhoon-induced upper ocean cooling, *Geophys. Res. Lett.*, Vol. 30, No. 3, 1131, doi:10.1029/2002GL015674, Feb. 2003. [Nature highlight]