

This is RCEC website cv template. Please follow the format as much as possible. No more than 5 pages.

Shu-Jeng Lin (林書正)

Research Center for Environmental Changes (RCEC), Academia Sinica

No. 128, Sec. 2, Academia Rd., Nankang, Taipei, Taiwan 115

Office Tel: [+886-2-2787-5945](tel:+886-2-2787-5945)

Mobile:

Email: book0922@gate.sinica.edu.tw

Lab website link: www.rcec.edu.tw

EDUCATION

2012/08 – 2017/07 Ph.D. Graduate School of Earth Science, Chinese Culture Uni., Taiwan

2009/08 – 2011/07 M.S. Depart. of Atmospheric Science, Chinese Culture Uni., Taiwan

2005/07 – 2009/06 B.A. Depart. of Atmospheric Science, Chinese Culture Uni., Taiwan

EMPLOYMENT

2020/01 - present Postdoctoral Researcher RCEC, Academia Sinica, Taiwan

2017/08 - 2019/12 Postdoctoral Researcher Depart. of Atmospheric Science, Chinese Culture Uni., Taiwan

2011/08 - 2012/07 Research Assistant Depart. of Atmospheric Science, Chinese Culture Uni., Taiwan

HONORS & AWARDS

2017 MOST 2017 Best Research Paper Award for Postdoctoral Fellows Awardees Conference
Travel Grant, NSC, Taiwan

PROFESSIONAL SERVICE

➤

RESEARCH INTEREST

- Observational analysis and research of the typhoon (Including intensity, structure, aircraft obs., satellite obs., and terrain interaction)
- The numerical weather forecast (WRF)
- The analysis of satellite observation in winds and precipitation (QuikSCAT, ASCAT, OceanSat, and CMORPH)
- The analysis of the lightning dataset (WWLLN)

RESEARCH HIGHLIGHTS

1. **The investigation of size change in TCs entry the South China Sea after passing the Philippines**

This is RCEC website cv template. Please follow the format as much as possible. No more than 5 pages.

This study investigates the size changes of tropical cyclones (TCs) traversing the Philippines based on a 37-year statistical analysis. TC size is defined by the radius of 30-kt wind speed (R30) from the best-track data of the Japan Meteorological Agency. Seventy-one TCs passed the Philippines during 1979–2015. The numbers of size increase (SI, 36) and size decrease (SD, 34) cases are very similar; however, the last 15 years have seen more SI cases (17) than SD cases (11). All of the vertical wind shear, absolute angular momentum flux, RH, and SST are larger in SI cases than in SD cases. The high SI ratio in recent years is related to strong southwesterly wind in the south of the South China Sea that raised relative humidity, warmed the sea surface, and increased import of angular momentum flux.

Reference: Lin and Chou, 2018.

2. The characteristic of lightning distribution in TCs over WNP

This study examines the characteristics of tropical cyclone (TC) lightning distribution and its relationship with TC intensity and environmental vertical wind shear (VWS) over the western North Pacific. It uses data from the World Wide Lightning Location Network and operational global analysis data from the National Centers for Environmental Prediction Final Analysis for 230 TCs during 2005–2017. As VWS increases, the flashes of lightning become more asymmetric and exhibit a higher proportion in the outer region of the downshear side. Moreover, the same features occur as TC intensity decreases. The spatial lightning distribution for rapid intensification type exhibits more inner-core lightning and more axisymmetric than the distributions for other categories.

Reference: Lin and Chou, 2020. (submitted)

REPRESENTATIVE PUBLICATIONS (*: corresponding author)

1. **Lin, S. -J.**, and K. -H. Chou*, 2020: The Lightning Distribution of Tropical Cyclones over the Western North Pacific. *Mon. Wea. Rev.* (submitted)
2. Chou, K. -H.*, C. -M. Yeh, **S. -J. Lin** 2019: The roles of vertical wind shear and topography in formation of convective asymmetries in Typhoon Nanmadol (2011). *Terr., Atmos. and Ocean. Sci.*, 30(2), 185-214.
3. **Lin, S. -J.**, and K. -H. Chou*, 2018: Characteristics of size change of tropical cyclones traversing the Philippines. *Mon. Wea. Rev.*, 146, 2891-2911.
4. Chou, K.-H.*, C.-C. Wu, and **S.-Z. Lin**, 2013: Assessment of the ASCAT wind error characteristics by global dropwindsonde observations, *J. Geophys. Res.*, 118, 9011–9021.
5. Chou, K.-H., **Lin, S. J.***, Ciang, M. H. (2016). The study of vertical wind shear induced convection asymmetry of tropical cyclone by CMORPH satellite data. *Atmos. Sci.* (in Chinese), 44, 353-376.

Others (Invited Talks , Keynote speech et al.)