

Chuan-Yao Lin 林傳堯

Research Center for Environmental Changes (RCEC), Academia Sinica

No. 128, Sec. 2, Academia Rd., Nankang, Taipei, Taiwan, R.O.C.

Office Tel: [+886-2-2787-5892](tel:+886-2-2787-5892)

Email: yao435@gate.sinica.edu.tw

Researcher ID: <https://publons.com/researcher/K-6503-2014/>

ORCID : <https://orcid.org/0000-0002-0005-7088>

Last update: 2023/11/28

EDUCATION

1992-Sep. ~ 1996-Jun. Ph.D. Graduate Institute of Atmospheric Physics,
National Central Uni., Taiwan

EMPLOYMENT

2015-Jul. ~ present Research Fellow RCEC, Academia Sinica, Taiwan
2015-Sep. ~ present Adjunct Professor, National Central Uni., Taiwan
2010-Oct. ~ 2015 Jul. Associate Research Fellow, RCEC, Academia Sinica, Taiwan
2011-Sep.~2015 Sep. Adjunct Associate Professor, National Central Uni., Taiwan
2009-Sep. ~2011.Sep. Adjunct Assistant Professor, National Central Uni., Taiwan
2006-Jun. ~2010 Oct. Assistant Research Fellow RCEC, Academia Sinica, Taiwan

HONORS & AWARDS

2022: Annual Research Highlight in 2021, RCEC, Academia Sinica (paper: **Lin C.Y.** et al. 2021:Air quality deterioration episode associated with typhoon over the complex topographic environment in central Taiwan. *Atmos. Chem. Phys.*, 21, 16839-16910.)
2021:Invited talk: Numerical simulation on extreme weather, air pollution and environmental changes, International Symposium on Grid&clouds 2021, Joint DMCC, UMD & Environmental Computing Workshop, 22-26 March, 2021, Taipei. Taiwan
2020: Invited talk: Impact of biomass burning from Indochina on the air quality of East Asia, 3rd Training Workshop of UND (Deeper Understanding of Natural Disaster – Instrumental for Disaster Mitigation). 15-17 January, Kuala Lumpur, Malaysia
2019: **Keynote speaker**, International Symposium on Grids and Cloud (ISGC)-Disaster Mitigation 31 March, 2019, Taiwan. (<http://event.twgrid.org/isgc2019/keynote-speakers.html>)
2019: Invited talk, Application of numerical model on extreme weather and regional climate changes studies, 18-22, Feb., 2019, APAN (Asia Pacific Advance Network) 47th, Daejeon, Korea.
2018: **Keynote speaker**: The 5th international conference on Information and Communication Technologies for Disaster Management (ICTDM), Tohoku University, Sendai, Japan. 4-7 December, 2018, (<http://ict-dm2018.net/program/keynotes/>)

- 2018: Invited talk: Application of numerical model on flooding and environmental studies., 03, August, 2018, APAN(Asia Pacific Advance Network) 46th, New Zealand.
- 2018: Annual Research Highlight in 2017, RCEC, Academia Sinica (paper: **Lin et al. 2017**: Climate variability of heat wave and projection of warming scenario in Taiwan, *Climatic Change*, 145, 305-320)
- 2017: **Invited talk**: Numerical analysis on mesoscale dynamics of the extreme rainfall and flood event (May 2016) over Sri Lanka., 09 March, 2017, ISGC (International symposium on Grids and Clouds), Taiwan
- 2016: **Invited talk**: Application of numerical model on flooding and environmental studies., 04, August, 2016, APAN(Asia Pacific Advance Network) 42th, Hong Kong.
- 2014 Best Article Award, 26th The Chinese Institute of Environmental Engineering conference
- 2012 Short-term overseas visiting Award, Ministry of Science and Technology
- 2009 Best article Award, 10th Aerosol conference, China & 6th Cross-Strait aerosol conference
- 2008 Most Cited Article Award (2004-2008) Journal: *Terrestrial, Atmospheric & Oceanic Sciences*
- 2006 Annual Research Highlight, RCEC, Academia Sinica
- 1996 The Phi Tau Phi Scholastic Honor, R.O.C.

ACADEMIC SERVICE

- 2021-Jan.-2021-Dec.,2021 Co-Chair and Panel of Atmospheric Science review committee, Department of Natural Sciences and sustainable development, Ministry of Science of Technology (MOST)
- 2019-Jan.-2021-Dec. Panel of Atmospheric Science review committee, Department of Natural Sciences and sustainable development, MOST
- 2020-Jan.-2021-Dec. Panel of review committee, Earth Science Research Promotion Center, MOST
- 2020-Nov-2022-Oct. Advisory Board, Department of Information Technology Services, Academia Sinica
- 2020-Mar.~present Editorial Board Members, Journal: "Atmosphere"
- 2017-Aug.~2020 July Associate Editors, Journal: *Terrestrial, Atmospheric and Oceanic Sciences (TAO)*
- 2015-May~2017 Apr. Secretary General, Meteorological Society of the Republic of China
- 2015, External Examiner for Doctoral Thesis, Earth System and GeoInformation Science, The Chinese University of Hong Kong Graduate School
- 2014~present Chair of the Curriculum committee for Earth System Science Program, Taiwan International Graduate Program (TIGP-ESS), Academia Sinica
- 2014 Mar~2014 Nov., Member, Admission Committee for Earth System Science Program, Taiwan International Graduate Program (TIGP-ESS), Academia Sinica,
- 2010~2016 Board member, Taiwan Group on Earth Observation (TGEO)

2011~2017 Board member, Environmental Protection, Taiwan,

RESEARCH INTERESTS

Mesoscale Meteorology, Regional Climate Changes, Urban Heat Island Effect, Urban pollution, Air quality modeling

RESEARCH HIGHLIGHTS

- **Improved urban canopy model in WRF and applications:** This study evaluated the impact of urbanization over northern Taiwan using the Weather Research and Forecasting (WRF) model coupled with the Noah land-surface model and a modified Urban Canopy Model (WRF-UCM2D). In the original UCM coupled in WRF (WRF-UCM), when the land use in the model grid is identified as “urban”, the urban fraction value is fixed. Similarly, the UCM assumes the distribution of anthropogenic heat (AH) to be constant. Such not only may lead to over- or underestimation of urban fraction and AH in urban and non-urban areas, spatial variation also affects the model-estimated temperature. To overcome the above-mentioned limitations and to improve the performance of the original UCM model, WRF-UCM is modified to consider the 2-D urban fraction and AH (WRF-UCM2D). The improved simulation performance of WRF-UCM2D at non-urban areas is attributed to the energy exchange which enables efficient turbulence mixing at low urban fraction. **The achievement of this study has a crucial implication for assessing the impacts of urbanization on weather, air quality and regional climate.**

- **Regional Climate Changes study:** It is difficult and inadequate to use a global model alone for projecting future climate changes such as Taiwan, a complex geographic nature island, due to its coarse resolution. We have performed dynamic downscaling of Taiwan’s climate in the recent past (1979-2003) and climate change projection for the near and distant future (2015-2039 and 2075-2099, respectively) by using the Weather Research Forecasting (WRF) model. The simulation is forced by the Max Plank Institute Hamburg, global model, ECHAM5/MPIOM. Projection of future climate changes revealed both altitudinal and latitudinal variations in warming trend, with more **significant temperature increase in mountain areas than in plain areas** toward the end of the 21st century and **more obvious warming in the north than in the south of Taiwan**. The results obtained in this study can be applied to other regions of similar latitudes and with comparable relief.

- **Impact of Biomass burning pollutants from Indochina to Taiwan:** For the long-range transport of air pollutants to Taiwan, we found the sources also could come from biomass burning in the Indochina Peninsula (Indochina) in the low troposphere over East Asia in springtime. Actually, due to Taiwan’s unique geographic location, the complex interactions of these air pollutants in the

boundary layer and aloft, especially those associated with northeasterly and south/southwesterly winds, have resulted in complex characteristics in the lower troposphere over Taiwan. We successfully simulated and evaluated the radiative impact of biomass burning produces aerosols and air pollutants to Taiwan during springtime in Southeast Asia. According to the simulation results, 34% of the AOD was attributed to organic carbon (OC) over Indochina, while the contribution of black carbon (BC) to AOD was about 4%. During the study period, biomass-burning aerosols over Indochina have a net negative effect (-26.85 Wm^{-2}) at ground surface, a positive effect (22.11 Wm^{-2}) in the atmosphere and a negative forcing (-4.74 Wm^{-2}) at the top of atmosphere. **Under the influence of biomass-burning aerosol plume transported by strong wind, there is a NE-SW zone stretching from southern China to Taiwan with reduction in shortwave radiation of about 20 Wm^{-2} at ground surface.** Such significant reduction in radiation attributed to biomass-burning aerosols and their impact on the regional climate in East Asia merit attention.

Publications update (2023/11/28) Lin C.Y.

(*: corresponding author)

2023

1. Mien-Tze Kueh, **Chuan-Yao Lin***, Yi-Yun Chien, **2023**: Temporal coherence in particulate matter in East Asian outflow regions: fingerprints of ENSO and Asian dust, *npj Climate and Atmospheric Science*, (in press)
2. Ruiqing Du, Chun-Ho Liu, Xianxiang Li, **Chuan-Yao Lin**, **2023**: Interaction among local flows, UHI, coastal winds, and complex terrain: Effect on urban-scale temperature and building energy consumption during heatwaves, *Energy& Buildings*, **303**, 11376. <https://doi.org/10.1016/j.enbuild.2023.113763>
3. **Lin Chuan-Yao***, Wan-Chin Chen, Yi-Yun Chien, Charles C. K. Chou, Chian-Yi Liu, Helmut Ziereis, Hans Schlager, Eric Förster, Florian Obsersteiner, Ovid O. Krüger, Bruna A. Holanda, Mira L. Pöhlker, Katharina Kaiser, Johannes Schneider, Birger Bohn, Klaus Pfeilsticker, Benjamin Weyland, Maria Dolores Andrés Hernández, John P. Burrows, **2023**: Effects of transport on a biomass burning plume from Indochina during EMeRGe-Asia identified by WRF-Chem. *Atmos. Chem. Phys.*, **23**, 2627–2647, **2023**. <https://doi.org/10.5194/acp-23-2627-2023>
4. **Lin Chuan-Yao***, Wen-Mei Chen, Yang-Fan Sheng, Wei-Nai Chen, Chian-Yi Liu, **2023**: Exploration of the Downward Transport Mechanisms of Biomass Burning Emissions from Indochina at the Low Boundary Layer in East Asia, *Atmospheric Environment*, **314**, 120117 <https://doi.org/10.1016/j.atmosenv.2023.120117>
5. Lin Hao-Hsuan, Chau-Ren Jung, **Chuan-Yao Lin***, Ya-Chu Chang, Chia-Yun Hsieh, Pei-Chuan

Hsu, Bao-Ru Chuang, Bing-Fang Hwang*, 2023: Prenatal and Postnatal Exposure to Heavy Metals in PM2.5 and Autism Spectrum Disorder, *Environmental Research*, 237,116874. <https://doi.org/10.1016/j.envres.2023.116874>

6. Du Ruiqing, Chung-Ho Liu, Xianxian Li and **Chuan-Yao Lin**, 2023: Effect of Local Climate Zone (LCZ) and Building Category (BC) Classification on the Simulation of Urban Climate and Air-Conditioning Load in Hong Kong , *Energy*, 271, 127004. <https://doi.org/10.1016/j.energy.2023.127004>
7. Tsung-Yu Lee, Chi-Cheng Chiu, Chia-Jeng Chen, **Chuan-Yao Lin**, Fuh-Kwo Shiah, 2023: Assessing Future Availability of Water Resources in Taiwan based on the Budyko Framework. *Ecological Indicators*, 146, 109808. <https://doi.org/10.1016/j.ecolind.2022.109808>
8. Chuang, M.-T.; Chou, C.C.-K.; **Lin, C.-Y.**; Lee, J.-H.; Lin, W.-C.; Chen, W.-N.; Liu, C.-Y.; Chang, C.-C. 2023: Probing air pollution in the Taichung metropolitan area, Taiwan.Part 1: Comprehensive model evaluation and the spatial-temporal evolution of a PM2.5 pollution event. *Atmospheric Research*, 287, 106713. <https://doi.org/10.1016/j.atmosres.2023.106713>

2022

9. Tsung-Yu Lee, Yu-Ting Wu, Mien-Tze Kueh, **Chuan-Yao Lin***, Yi-Ying Lin, and Yang-Fan Sheng, 2022: Impacts of offshore wind farms on the atmospheric environment over Taiwan Strait during an extreme weather typhoon event. *Scientific Reports*,12:823. <https://doi.org/10.1038/s41598-022-04807-w>
10. Chih-Ying Chen, Nan-Ching Yeh, **Chuan-Yao Lin***,2022: Data Assimilation of Doppler Wind Lidar for the Extreme Rainfall Event Prediction over Northern Taiwan: A Case Study. *Atmosphere*, 13,987. <https://doi.org/10.3390/atmos13060987>
11. Chih-Ying Chen, Nan-Ching Yeh, Yao-Chuang Chuang, **Chuan-Yao Lin***, 2022: Development of a Low-Cost Portable Cluster for Numerical Weather Prediction. *Electronics* 2022,11, 2769. <https://doi.org/10.3390/electronics11172769>
12. Mien-Tze Kueh and **Chuan-Yao Lin**, 2022: Warming Trend and Cloud Responses over the Indochina Peninsula during Monsoon Transition. *Remote sensing*, 14, 4077. <https://doi.org/10.3390/rs14164077>
13. Li-Wei Lai and **Chuan-Yao Lin**, 2022: Influence of the geographic channel effect on PM2.5 concentrations over the Taipei Basin in relation to continental high-pressure systems during winter. *Atmosphere*, Atmosphere 2022, 13,1539. <https://doi.org/10.3390/atmos13101539>
14. Jung Chien-Cheng, Charles, C. K. Chou, Y.-T. Huang, S.-Y.Chang, C.T. Lee, **C.-Y. Lin**, H.-C

- Cheung, W.-C., Kuo, C.-W. Chang, S.-C. Chang, 2022: Isotopic signatures and source apportionment of Pb in ambient PM_{2.5}. *Scientific Reports*.12:4343. <https://doi.org/10.1038/s41598-022-08096-1>
15. Cheng-Ku Yu, Wei-Fan Liu, Lin-Wen Cheng and **Chuan-Yao Lin**, 2022: Mechanisms of Valley Precipitation Enhancement over Da-Tun Mountain, *Monthly Weather Review.*, 150,1851-1871. <https://doi.org/10.1175/MWR-D-21-0195.1>
16. Zhang Nan, Daigee Shaw and **Chuan-Yao Lin**, Implicit prices of job risk, climate, and air pollution: Evidence from Taiwan. *Climate Change Economics*, 225007, DOI: 10.1142/S2010007822500075
17. Yu-Lin Tsai, Tso-Ren Wu, Eric Yen, **Chuan-Yao Lin**, Simon C. Lin,2022: Parallel-Computing Two-Way Grid-Nested Storm Surge Model with Moving Boundary Scheme and Case Study of 2013 Super Typhoon Haiyan. *Water*, 14,547, <https://doi.org/10.3390/w14040547>
18. Pu-Yun Kow, Li-Chiu Chang, **Chuan-Yao Lin**, Charles C.-K. Chou, Fi-John Chang, 2022: Deep neural networks for spatiotemporal 1 PM_{2.5} forecasts based on atmospheric chemical transport model output and monitoring data. *Environmental Pollution*, 306, 119348. <https://doi.org/10.1016/j.envpol.2022.119348>
19. Nai-Tzu Chen, Lai-Man Tam, Jer-Horng Wu, Ngok-Song Cheong, **Chuan-Yao Lin**, Chun-Chieh Tseng, Huey-Jen Su *, 2022: Changes in Ambient Bacterial Community in Northern Taiwan During Long-Range Transport: Asian Dust Storm and Frontal Pollution. *Atmosphere*, 13,841. <https://doi.org/10.3390/atmos13050841>
20. Ming-Thuang, Chuang, Charles, C.K. Chou, **Chuan-Yao Lin**, Ja-Huai Lee, Wei-Che Lin, Chih-chung Chang, Chung-Te Lee, Steven Soon-Kai Kong, Tang-Huang Lin, 2022: A numerical study of reducing the concentration of O₃ and PM_{2.5} simultaneously in Taiwan, *Journal of Environmental Management*, 318, 115614. <https://doi.org/10.1016/j.jenvman.2022.115614>
21. Chuang M.-T., C. F. Wu, **C.-Y. Lin**, W.C. Lin, C. C.-K, Chou, C.T. Lee, T. -H. Lin, J. S. Fu, S. S. -K., Kong, 2022: Simulating nitrate formation mechanisms during PM_{2.5} events in Taiwan and their implications for the controlling direction. *Atmospheric Environment*. AEA 118856, <https://doi.org/10.1016/j.atmosenv.2021.118856>

2021

22. **Lin, Chuan-Yao***, Yang-Fan Sheng, Wan-Chin Chen, Charles, C. K. Chou, Yi-Yun Chien, Wen-Mei Chen, 2021: Air quality deterioration episode associated with typhoon over the complex topographic environment in central Taiwan. *Atmos. Chem. Phys.*, 21, 16839-16910.

<https://doi.org/10.5194/acp-21-16893-2021>

23. Hsieh, C.-Y., C.-R. Jung, **Chuan-Yao Lin***, Bing-Fang Hwang*, 2021, Combined exposure to heavy metals in PM_{2.5} and pediatric asthma, **The Journal of Allergy and Clinical Immunology**, **147**, 2171-2180. <https://doi.org/10.1016/j.jaci.2020.12.634>
24. Chuang M.-T., C. F. Wu, **C.-Y. Lin**, W.C. Lin, C. C.-K, Chou, C.T. Lee, T. -H. Lin, J. S. Fu, S. S. -K., Kong, 2021: Simulating nitrate formation mechanisms during PM_{2.5} events in Taiwan and their implications for the controlling direction. *Atmospheric Environment*. **AEA 118856**, <https://doi.org/10.1016/j.atmosenv.2021.118856>.
25. Chen N.-T., N.-S. Cheong, **Chuan-Yao Lin**, C-C. Tseng, H-J. Su, 2021, Ambient viral and bacterial distribution during long-range transport in northern Taiwan, **Environmental Pollution**, 270, 116231, <https://doi.org/10.1016/j.envpol.2020.116231>
26. Jie Yang, **Chuan-Yao Lin**, Haijiang Liu, Linlin Li, Tso-ren Wu, Peitao Wang, Benxia Li, and Philip L-F. Liu, 2021: Effects of island topography on storm surge in Taiwan Strait during Typhoon Maria, **Journal of Waterway, Port, Coastal, and Ocean Engineering**. 147 (2), <https://ascelibrary.org/doi/abs/10.1061/%28ASCE%29WW.1943-5460.0000619>
27. Daigee Shaw, J.-C., Huang, **Chuan-Yao Lin**, Ting-Yu Hsu, Mingche Tsai, 2021: Estimating Demand for Good Climate and Air Quality in Taiwan, **Climate Change Economics**, V12, No.1, 215003 <https://doi.org/10.1142/S2010007821500032>

2020

28. Kueh, M-T., and **Chuan-Yao Lin***, 2020: The 2018 summer heatwaves over northwestern Europe and its extended-range prediction. **Scientific Report**,(2020) 10:19283 <https://doi.org/10.1038/s41598-020-76181-4>
29. Yu-Ting Wu, **Chuan-Yao Lin**, Tsang-Jung Chang, 2020: Effects of inflow turbulence intensity and turbine arrangements on the power generation efficiency of large wind farms, *Wind Energy*, 23: 1640-1655. <https://doi.org/10.1002/we.2507>
30. Lei Kong, Xiao Tang, Jiang Zhu, Zifa Wang, Joshua S Fu, Xuemei Wang, Syuichi Itahashi, Kazuyo Yamaji, Tatsuya Nagashima, Hyo-Jung Lee, Cheol-Hee Kim, **Chuan-Yao Lin**, Lei Chen, Meigen Zhang, Zhining Tao, Jie Li, Mizuo Kajino, Hong Liao, Kengo Sudo, Yuesi Wang, Yuepeng Pan, Guiqian Tang, Meng Li, Qizhong Wu, Baozhu Ge, and Gregory R Carmichael, 2020, Evaluation and uncertainty investigation of the NO₂, CO and NH₃ modeling over China under the framework of MICS-Asia III, *Atmos. Chem. Phys.* 20, 181-202. <https://doi.org/10.5194/acp-20->

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31. Tan, J., Fu, J. S., Carmichael, G. R., Itahashi, S., Tao, Z., Huang, K., Dong, X., Yamaji, K., Nagashima, T., Wang, X., Liu, Y., Lee, H.-J., **Lin, C.-Y.**, Ge, B., Kajino, M., Zhu, J., Zhang, M., Hong, L., and Wang, Z.: Why do models perform differently on particulate matter over East Asia? – A multi-model intercomparison study for MICS-Asia III, *Atmos. Chem. Phys.*, 20, 7393-7410, 2020, <https://doi.org/10.5194/acp-20-7393-2020>
32. Yu-Lin Tsai, Tso-Ren Wu *, **Chuan-Yao Lin**, Simon C. Lin, Eric Yen, Chun-Wei Lin, 2020: Discrepancies on Storm Surge Predictions by Parametric Wind Model and Numerical Weather Prediction Model in a Semi-Enclosed Bay: Case Study of Typhoon Haiyan, *Water*, **12(12)**, 3326, doi: 10.3390/w12123326

2019

33. Kueh, M-T., W.-M., Chen, Y. F. Sheng, Simon C. Lin, T.-R. Wu, Eric Yen, Y. L Tsai, **C. Y. Lin***, **2019** : Effects of horizontal resolution and air–sea flux parameterization on the intensity and structure of simulated Typhoon Haiyan (2013), *Nat. Hazards Earth Syst. Sci.* 19, 1509–1539, 2019. <https://doi.org/10.5194/nhess-19-1509-2019>
34. Chen, C.-C., **C.-Y. Lin**, K.-T. Chen, **2019**, Epidemiologic features of shigellosis and associated climatic factors in Taiwan, *Medicine*, 98(34) :e16928. DOI: 10.1097/MD.00000000000016928
35. Koralegedara, S.B., **C.-Y. Lin***, Y.-F. Sheng, **2019**, Numerical Analysis of the Mesoscale Dynamics of an Extreme Rainfall and Flood Event in Sri Lanka in May 2016. *J. Meteor. Soc. Japan*, 97 (4), 821-839, <https://doi.org/10.2151/jmsj.2019-046>.
36. Lao X.Q., Cui Guo , Ly-yun Chang, Yacong Bo, Zilong Zhang, Yuan Chieh Chuang, Wun Kai Jiang, Changqing Lin, Tony Tam, Alexis K.H. Lau, **Chuan-Yao Lin**, Ta-Chien Chan, **2019**: Long-term exposure to ambient fine particulate matter (PM_{2.5}) and incident type 2 diabetes: a longitudinal cohort study. 62(5):759-769 *Diabetologia*. DOI: 10.1007/s00125-019-4825-1
37. Bo Y., Ly-Yun Chang, Cui Guo, Zilong Zhang, Changqing Lin, Yuan Chieh Chuang, Wun Kai Jiang, Tony Tam, Ta-Chien Chan, **Chuan-Yao Lin**, Alexis KH Lau, Xiang Qian Lao*, Eng-Kiong Yeoh, **2019**, Association of Long-term Exposure to Fine Particulate Matter and Incident Dyslipidaemia: A Longitudinal Cohort Study. *Environmental Research*, 173:359-365. doi: 10.1016/j.envres.2019.03.034
38. Jung C.-C., C.C.-K. Chou, **C.-Y. Lin**, Chuan Chou Shen, Yu-Chi Lin, Yi-Tang Huang, Chao-yang Tsai, Pei Hsuan Yao, Ci-Rong Huang, Wei-Ru Huang, Mei-June Chen, Shu-Hui Huang, Shuen-

- Chin Chang, **2019** C-Sr-Pb isotopic characteristics of PM_{2.5} transported on the East-Asian continental outflows, *Atmospheric Research*, **223**, 88-97, <https://doi.org/10.1016/j.atmosres.2019.03.011>
39. Jie Li, Tatsuya Nagashima, Lei Kong, Baozhu Ge, Kazuyo Yamaji, Joshua S Fu, Xuemei Wang, Qi Fan, Syuichi Itahashi, Hyo-Jung Lee, Cheol-Hee Kim, **Chuan-Yao Lin**, Meigen Zhang, Zhining Tao, Mizuo Kajino, Hong Liao, Meng Li, Jung-Hun Woo, Jun-ichi Kurokawa, Qizhong Wu, Hajime Akimoto, Gregory R Carmichael, and Zifa Wang, 2018. Model evaluation and inter-comparison of surface-level ozone and relevant species in East Asia in the context of MICS-ASIA phase III Part I: overview. *Atmos. Chem. Phys.*, **19**, 12993–13015, 2019 <https://doi.org/10.5194/acp-19-12993-2019>
40. Wu Yu-Ting; Teh-Lu Liao; Chang-Kuo Chen; **Chuan-Yao Lin**; Po-Wei Chen, **2019**, Power output efficiency in large wind farms with different hub-position configurations, *Renewable Energy*, **132**, 941-949. <https://doi.org/10.1016/j.renene.2018.08.051>
41. Lei Chen, Yi Gao, Meigen Zhang, Joshua S. Fu, Jia Zhu, Hong Liao, Jialin Li, Kan Huang, Baozhu Ge, Xuemei Wang, Yun Fat LAM, **Chuan Yao Lin**, Syuichi Itahashi, Tatsuya Nagashima, Mizuo Kajino, Kazuyo Yamaji, Zifa Wang, and Jun-ichi Kurokawa, 2018, MICS-Asia III: Multi-model comparison and evaluation of aerosol over East Asia. *Atmos. Chem. Phys.* **19**, 11911–11937, 2019, <https://www.atmos-chem-phys.net/19/11911/2019/>
42. Lee Li-Chin, Ting-Chang Hsu, Tsung-Yu Lee, Yu-Ting Shih, **Chuan-Yao Lin**, Shih-Hao Jien, Thomas Hein, Franz Zehetner, Fuh-Kwo Shiah, Jr-Chuan Huang* 2019, Unusual Roles of Discharge, Slope and SOC in DOC Transport in Small Mountainous Rivers, Taiwan, *Scientific Reports*, **9**, Article number: 1574 (2019) 1574 <https://www.nature.com/articles/s41598-018-38276-x>

2018

43. **Lin C.-Y.***, Y. H. Lee, C-Y. Kuo, W.-C., Chen, Y. F. Sheng, C-J. Su, **2018**, Impact of river-dust events on air quality of western Taiwan during winter monsoon: observed evidence and model simulation, *Atmospheric Environment*, **192**, 160-172. <https://doi.org/10.1016/j.atmosenv.2018.08.048>
44. Tong C.H.M, Yim, S.H.Lam, Rothenberg D., Wang C., **Lin C.-Y.**, Chen Y., Lau N. C., 2018, Assessing the Impacts of Seasonal and Vertical Atmospheric Conditions on Air Quality over the Pearl River Delta Region, *Atmospheric Environment*, **180**, 69-78.

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45. Tong C.H.M, Yim, S.H.Lam, Rothenberg D., Wang C., **Lin C.-Y.**, Chen Y., Lau N. C., 2018, Projecting the impacts of atmospheric conditions under climate change on air quality over the Pearl River Delta region, *Atmospheric Environment*, **193**, 79-87.
<https://doi.org/10.1016/j.atmosenv.2018.08.053>
46. Li, L., Yang, J., **Lin, C.-Y.**, Chua, C. T., Wang, Y., Zhao, K., Wu, Y.-T., Liu, P. L.-F., Switzer, A. D., Mok, K. M., Wang, P., and Peng, D., 2018: Field survey of the 2017 Typhoon Hato and a comparison with storm surge modeling in Macau, *Nat. Hazards Earth Syst. Sci.* 18, 3167-3178,
<https://www.nat-hazards-earth-syst-sci.net/18/3167/2018/>
47. Lin Y.C., S. C. Hsu, **C.-Y.Lin**, S.H. Lin, Y. T. Huang, Y. Chang, Y. Lin Zhang, 2018, Enhancements of Airborne Particulate Arsenic over the Subtropical Free Troposphere in the Springtime: Impact by South Asian Biomass Burning. *Atmos. Chem. Phys.* 18,13865-13879.
<https://www.atmos-chem-phys.net/18/13865/2018/>

2017

48. Kueh, M-T, **C.-Y. Lin***, Y-J Chuang, Y-F Sheng, Y-Y Chien, 2017, Climate variability of heat waves and their associated diurnal temperature range variations in Taiwan, *Environmental Research Letters*, (<https://doi.org/10.1088/1748-9326/aa70d9>).
49. **Lin C.-Y***, Y-Y Chien, C-J. Su, M-T Kueh, S-C. Lung, 2017, Climate variability of heat wave and projection of warming scenario in Taiwan, *Climatic Change*, **145**, 305-320.
<https://doi.org/10.1007/s10584-017-2091-0>
50. Lin C. L., H. L. Chang, **C.-Y. Lin**, K. -T. Chen, 2017, Seasonal patterns of Japanese encephalitis and associated meteorological factors in Taiwan, *International Journal of Environmental Research and Public Health*, 14,1317; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5707956/>
51. Li J., Y. Zhang, Z. Wang, YL Sun, PQ Fu, YC Yang, HLHuang, JJ Li, Q. Zhang, **C.Y. Lin**, et al. Regional Impact of Biomass Burning in Southeast Asia on Atmospheric Aerosols during the 2013 Seven South-East Asian Studies Project, *Aerosol and Air Quality Research*, 12, 2924-2941.
<https://pdfs.semanticscholar.org/53c9/91a1ed296d028ec0d6c244d52c32a888393e.pdf>
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