Earth System Science Interdisciplinary Center, University of Maryland, College Park, MD 20740, USA

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Biography

I am specialized in air quality, aerosols, particulate matter (PM), trace and polluted gases, and clouds by means of remote sensing, big data, and artificial intelligence (AI), and accessing the impacts of air pollution and extreme weather on environmental health. I have authored over 70 SCI papers as (co-) first or corresponding authors in leading journals like *Lancet Planetary Health, Remote Sensing of Environment, Environmental Science & Technology, Atmospheric Chemistry and Physics*, and *Circulation*, including 7 ESI Hot (Top < 0.1%) papers and 15 ESI Highly Cited (Top < 1%) papers indicated by the *Web of Science*, and 9 papers have been cited more than 100 times, with 2 first-author papers cited more than 340 times. My total



citations are **5400**+ times with an H-index of **39** (Google). I was the recipient of the **AGU James R. Holton Award** (**2022**), *Remote Sensing* **Young Investigator Award** (**2023**), and on the Stanford University List of the **World's Top 2% Scientists** (**2022**, **2021**, **2020**). I have served as an Editor of *Earth System Science Data*, and Associate Editor of *Journal of Geophysical Research: Atmospheres*, and *Remote Sensing*. I have generated the high-resolution and high-quality datasets of air pollutants in China (CHAP), the United States (USHAP), and the Global World (GHAP), which have been widely used, leading to more than **230** applied publications.

Work Experience

Assistant Research Scientist (Pending), Department of Atmospheric and Oceanic Science, Earth System Science Interdisciplinary Center, University of Maryland, College Park, USA, 2023/09–Present.

Postdoctoral (Faculty Research) Associate, Department of Atmospheric and Oceanic Science, Earth System Science Interdisciplinary Center, University of Maryland, College Park, USA, 2022–2023.

Postdoctoral Research Scholar, Department of Chemical and Biochemical Engineering, University of Iowa, USA, 2021–2022. Research Assistant, Center for Earth System Science, Tsinghua University, China, 2017–2018.

Research Assistant, Institute of Space and Earth Information Science, Chinese University of Hong Kong, China, 2017.

Education

Joint Ph.D. in Atmospheric Physics and Atmospheric Environment, University of Maryland, College Park, USA, 2021. Ph.D. in Global Environmental Change (Geography), Beijing Normal University, China, 2021.

M.Sc. in Photogrammetry and Remote Sensing, Shandong University of Science and Technology, China, 2017.

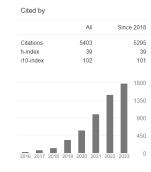
B.Sc. in Remote Sensing Science and Technology, Shandong University of Science and Technology, China, 2014.

Research Interests

- Atmospheric aerosols, particulate matter (PM) and chemical composition
- Ambient trace and polluted gases (e.g., O₃, NO₂, SO₂, and CO)
- Air pollutant modelling and health exposure assessment
- Impacts of air pollution and extreme weather (e.g., extreme temperatures) on environmental health
- Cloud and cloud shadow detection for satellite remote sensing imagery
- (Explainable) Artificial Intelligence (machine, deep, and transfer learning)
- Big data

Publications and Citations

- First/corresponding author: 77 (A full list is provided on Page 4–9)
- Google Scholar: *H-index* = 39, *Total Citations* = 5,403
- Web of Science: H-index = 35, Total Citations = 4,283



Awards and Honors

- 2023: Young Investigator Award, Remote Sensing (Awarded one young investigator worldwide annually): For exceptional contributions to atmospheric aerosols, clouds, particulate matter, and trace gases using remote sensing, big data, and artificial intelligence
- 2022: James R. Holton Award, American Geophysical Union (AGU) (Usually awarded one young scientist worldwide annually): For exceptional contributions to satellite remote sensing of aerosols, particulate matter and trace gases, and assessing the impacts of air pollution.
- 2022: Best Paper Award, Earth System Science Interdisciplinary Center, University of Maryland
- 2021: Zhou Tingru Geography Youth Award, Zhou Tingru Scholarship Secretariat
- 2020: Gao Tingyao Environmental Protection Outstanding Youth Award, Gaotingyao Environmental Protection Technology Development Foundation
- 2019: Li Xiaowen Remote Sensing Science Youth Award, Li Xiaowen Foundation Council

Authorship Recognitions

- World's Top 2% Scientists (2022, 2021, 2020), Stanford University Analysis & Mendeley
- ESI Hot Papers (Top < 0.1%), Web of Science [7]:
 - Remote Sensing of Environment (Wei et al., 2022, 2021, 2019)
 - Environmental Science & Technology (Wei et al., 2019)
 - Atmospheric Chemistry and Physics (Wei et al., 2023, 2020)
 - Atmospheric Environment (Wei et al., 2019)
- ESI Highly Cited Papers (Top < 1%), Web of Science [17]:
 - Remote Sensing of Environment (Wei et al., 2022, 2021, 2019)
 - Environmental Science & Technology (Wei et al., 2022; 2019)
 - ➤ Journal of Cleaner Production (Xue et al., 2022)
 - Environment International (Wei et al., 2021)
 - Atmospheric Chemistry and Physics (Wei et al., 2021, 2020, 2019)
 - Science of The Total Environment (Liu et al., 2021)
 - Atmospheric Environment (Wei et al., 2019, 2018)
 - ➤ BMC Medicine (Cai et al., 2023)
 - Science of The Total Environment (Cai et al., 2023; Liu et al., 2021)
 - ➤ Remote Sensing (He et al., 2018)
- Journal rankings, *Exaly* [3]:
 - > 1st most cited paper, *Remote Sensing of Environment* (Wei et al., 2021)
 - ➤ 1st most cited paper, Atmospheric Environment (Wei et al., 2019)
 - ▶ 1st most cited author, *Atmospheric Environment* (Wei et al., 2019)
- Journal Most Cited Articles [4] published in:
 - Remote Sensing of Environment since 2020 (Wei et al., 2021)
 - Remote Sensing of Environment since 2019 (Wei et al., 2021, 2019)
 - Remote Sensing of Environment since 2018 (Wei et al., 2019)
 - Atmospheric Environment since 2018 (Wei et al., 2019)
- Journal Highlight or High Impact Article [3]:
 - > Journal of Geophysical Research Atmospheres (Wei et al., 2018)
 - ► Hypertension (Xu et al., 2021)
 - Atmospheric Chemistry and Physics (Liu et al., 2020)
- Top 100 Most Cited Chinese Papers Published in International Journals, Institute of Scientific and Technology Information of China, published in *Remote Sensing of Environment* (Wei et al., 2021)

Research Grants

- NASA Earth Sciences' Applied Science Program:
 - Generation of Integrated Aerosol Fine-Mode Fraction and Surface Particulate Matter from LEO- and GEO Satellites in Asia Using Machine-Learning Models [80NSSC21K1980], 2021—Present, Co-Investigator
 - Enrich and enhance the application of TEMPO and GEOS data products for regional air quality and public health management under smoke conditions [80NSSC21K0428], 2021—Present, Co-Investigator

Professional Service

- Editorship
 - Editor, Earth System Science Data (IF = 11.4), 2022–Present
 - > Associate Editor, Journal of Geophysical Research: Atmospheres (IF = 4.4), 2023–Present
 - Associate Editor, *Remote Sensing* (IF = 5.0), 2022–Present
 - Youth Editor, *The Innovation* (IF = 32.1), 2022–Present
 - Editorial Board Member: International Journal of Digital Earth, Big Earth Data (2021–2023)
 - Youth Editorial Board Member: Remote Sensing Technology and Application (2022–Present); Journal of Atmospheric and Environmental Optics (2022–Present); Journal of Environmental Hygiene (2022–Present)
 - ➤ Guest Editor: Remote Sensing (2021–Present); Atmospheric Measurement Techniques (2021–Present); Sustainability (2021–Present); Frontiers in Earth Science (2021–2022); Frontiers in Environmental Science (2021–2022); Frontiers in Public Health (2022); Atmosphere (2022); National Remote Sensing Bulletin (2021–2022)
- Scientific committee:
 - Executive Secretary, Chinese-American Oceanic and Atmospheric Association (COAA), 2023-Present
 - ➤ Co-Chair, Working Group-8 (WG-8): Air Quality & Health, Atmospheric Environmental Remote Sensing Society (AERSS), 2023-Present
 - Co-Chair, Early Career and Postgraduate Committee, Atmospheric Environmental Remote Sensing Society (AERSS), 2022-2023
- Convener/ Chair of conference symposium/session:
 - Co-Convener/Co-Chair, Asia Oceania Geosciences Society (AOGS) Section, 2022 (**Top Conveners**)
- Journal Reviewer (180+ peer reviews for 50+ journals):
 - Remote Sensing: Remote Sensing of Environment, IEEE Transactions on Geoscience and Remote Sensing, ISPRS Journal of Photogrammetry and Remote Sensing, International Journal of Remote Sensing, et al.
 - Atmospheric Science: Journal of Geophysical Research: Atmospheres, Geophysical Research Letters, Atmospheric Chemistry and Physics, Agricultural and Forest Meteorology; et al.
 - Environmental Science: Environmental Science & Technology, Environment International, Environmental Pollution, Science of the Total Environment, Environmental Research Letters, et al.
 - Public health and others: The Innovation; The Lancet Regional Health Americas; Earth System Science Data; Energy Economics; Journal of Quantitative Spectroscopy and Radiative Transfer; et al.

Selected Invited Seminars [Total seminars: 24 talks (1 Chair)].

- Wei, J. Atmospheric Science Early Career Seminar, American Geophysical Union (AGU), June 15, 2023.
- Wei, J. AOSC Department Seminar, University of Maryland, College Park, November 3, 2022.
- Wei, J. University of Science and Technology of China, China, October 21, 2022.
- Wei, J. MDPI Remote Sensing Seminar, June 25, 2022. (Chair)
- Wei, J. China Research Academy of Environmental Sciences, July 8, 2021.
- Wei, J. Lanzhou University, China, March 26, 2021.
- Wei, J. Nanjing University of Information Science and Technology, China, December 29, 2020.
- Wei, J. NASA Goddard Space Flight Center, Greenbelt, December 1, 2020.
- Wei, J. Ministry of Ecology and Environment Center for Satellite Application on Ecology and Environment, China, November 25, 2020.
- Wei, J. Zhejiang University, China, September 20, 2020.
- Wei, J. Peking University, China, July 8, 2019.

Selected Presentations [Conference Presentations: **18** talks (**3** invited), **8** posters]

- **Wei, J.** Tracking daily 1 km PM_{2.5} chemical composition in China since 2000 from space via deep learning, International Society of Exposure Science (ISES) Annual Meeting, August 28, 2023, Chicago, USA.
- Wei, J. Tracking Air Pollution in China from Space Using Artificial intelligence, Asia Oceania Geosciences Society (AOGS) Annual Meeting, August 1, 2023, Singapore. (Invited Talk)
- Wei, J. Tracking Ambient Particulate Matter and Chemical Composition from Space using AI, MODIS/VIIRS Science Team Meeting, May 3, 2023, College Park, MD, USA.

- Wei, J. ChinaHighAirPollutants (CHAP) dataset driven by multi-source satellite remote sensing, Land Remote Sensing Products Frontier Dynamics and Data Use Learning Conference, February 19, 2023. (Invited Talk)
- Wei, J. Two-decade fine-scale surface PM_{2.5} estimates and spatiotemporal variations in China using machine learning, American Meteorological Society (AMS) Annual Meeting, January 10, 2023, online.
- **Wei, J.** Tracking ambient air pollution from space integrating Big Data and artificial intelligence. American Geophysical Union (AGU) Fall Meeting, December 12–16, 2022, Chicago, IL, USA. (**Invited Talk**)

Student Guidance

- Tianshu Xu (Postgraduate student, 2023–Present): 1 paper in preparation
- Fan Cheng (Postgraduate student, 2022–Present): 1 paper in preparation
- Zeyu Yang (Postgraduate student, 2022–Present): 1 paper in preparation
- Zhihui Wang (Postgraduate student, 2022–2023): 1 paper in preparation
- Zhongyan Tian (Postgraduate student, 2022–2023): 1 paper published in *Remote Sensing* (2023)
- Shulin Pang (Postgraduate student, 2022–2023): 1 paper published in *Remote Sensing* (2023)
- Xinyao Li (Postgraduate student, 2021–2022): 1 paper published in *Journal of Cleaner Production* (2022)
- Zhendong Sun (Postgraduate student, 2020–2021): 1 paper published in *Remote Sensing* (2021)

Publications with first/corresponding authors [Full list at: https://weijing-rs.github.io/publication.html]

(Note *: Corresponding author; #: Co-first author) [Citations > 100]

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- 1. **Wei, J.***, Wang, J., Li, Z., Kondragunta, S., Anenberg, S., Wang, Y., Zhang, H., Diner, D., Hand, J., Lyapustin, A., Kahn, R., Colarco, P., da Silva, A., and Ichoku, C. Long-term mortality burden trends attributed to black carbon and PM_{2.5} from wildfire emissions across the continental US from 2000-2020: a deep learning modelling study. *The Lancet Planetary Health*, 2023, In press.
- 2. **Wei, J.***, Li, Z., Wang, J., Li, C., Gupta, P., and Cribb, M. Ground-level gaseous pollutants (NO₂, SO₂, and CO) in China: daily seamless mapping and spatiotemporal variations. *Atmospheric Chemistry and Physics*, 2023, 23, 1511–1532. https://doi.org/10.5194/acp-23-1511-2023 (**ESI Hot and Highly Cited Paper**)
- 3. **Wei, J.***, Li, Z., Chen, X., Li, C., Sun, Y., Wang, J., Lyapustin, A., Brasseur, G., Jiang, M., Sun, L., Wang, T., Jung, C., Qiu, B., Fang, C., Liu, X., Hao, J., Wang, Y., Zhan, M., Song, X., and Liu, Y. Separating daily 1 km PM_{2.5} inorganic chemical composition in China since 2000 via deep learning integrating ground, satellite, and model data. *Environmental Science & Technology*, 2023. https://doi.org/10.1021/acs.est.3c00272
- 4. Cai, M., Wei, J.*, Zhang, S., Liu, W., Wang, L., Qian, Z., Lin, H., Liu, E., McMillin, S., Cao, Y., and Yin, P. Short-term air pollution exposure associated with death from kidney diseases: a nationwide time-stratifed case-crossover study in China from 2015 to 2019. *BMC Medicine*, 2023, 21, 32. https://doi.org/10.1186/s12916-023-02734-9 (ESI Highly Cited Paper)
- 5. Cai, M., Lin, X., Wang, X., Zhang, S., Qian, Z., McMillin, S., Aaron, H., Lin, H., Wei, J.*, Zhang, Z., and Pan, J. Ambient particulate matter pollution of different sizes associated with recurrent stroke hospitalization in China: A cohort study of 1.07 million stroke patients. *Science of The Total Environment*, 2023, 856, 159104. https://doi.org/10.1016/j.scitotenv.2022.159104 (ESI Highly Cited Paper)
- 6. Hu, M., Wei, J.*, Hu, Y., Guo, X., Li, Z., Liu, Y., Li, S., Xue, Y., Li, Y., Liu, M., Wang, L., and Liu, X. Long-term effect of submicronic particulate matter (PM₁) and intermodal particulate matter (PM_{1-2.5}) on incident dyslipidemia in China: A nationwide 5-year cohort study. *Environmental Research*, 2023, 216, 114860. https://doi.org/10.1016/j.envres.2022.114860
- 7. Li, M., Edgell, R., Wei, J.*, Li, H., Qian, Z., Feng, J., Tian, F., Wang, X., Xin, Q., Cai, M., and Lin, H. Air pollution and stroke hospitalization in the Beibu Gulf Region of China: A case-crossover analysis. *Ecotoxicology and Environmental Safety*, 2023, 255, 114814. https://doi.org/10.1016/j.ecoenv.2023.114814
- 8. Li, S., **Wei, J.***, Hu, Y., Liu, Y., Hu, M., Shi, Y., Xue, Y., Liu, M., Xie, W., Guo, X., and Liu, X. Long-term effect of intermediate particulate matter (PM_{1-2.5}) on incident asthma among middle-aged and elderly adults: A national population-based longitudinal study. *Science of The Total Environment*, 2023, 859, 160204. https://doi.org/10.1016/j.scitotenv.2022.160204
- 9. Liu, C., Yu, B., Liu, C., Tang, L., Zhao, K., Zhang, P., He, F., Wang, M., Shi, C., Lu, Z., Zhang, B., Wei, J.*, Xue, F., Guo, X., and Jia, X. Effect of neighbourhood greenness on the association between air pollution and risk

- of stroke first onset: A case-crossover study in shandong province, China. *International Journal of Hygiene and Environmental Health*, 2023, 254, 114262. https://doi.org/10.1016/j.ijheh.2023.114262
- 10. Liu, W., Cai, M., Long, Z., Tong, X., Li, Y., Wang, L., Zhou, M., **Wei, J.***, Lin, H., and Yin, P. Association between ambient sulfur dioxide pollution and asthma mortality: Evidence from a nationwide analysis in China. *Ecotoxicology and Environmental Safety*, 2023, 249, 114442. https://doi.org/10.1016/j.ecoenv.2022.114442
- 11. Pang, S., Sun, L., Tian, Y., Ma, Y., and **Wei, J.***. Convolutional neural network-driven improvements in global cloud detection for Landsat 8 and transfer learning on Sentinel-2 imagery. *Remote Sensing*, 2023, 15(6), 1706. https://doi.org/10.3390/rs15061706
- 12. Tian, Y., Wu, J., Wu, Y., Wang, M., Wang, S., Yang, R., Wang, X., Wang, J., Yu, H., Li, D., Wu, T., **Wei, J.***, and Hao, Y. Short-term exposure to reduced specific-size ambient particulate matter increase the risk of cause-specific cardiovascular disease: A national-wide evidence from hospital admissions. *Ecotoxicology and Environmental Safety*, 2023, 263, 115327. https://doi.org/10.1016/j.ecoenv.2023.115299
- 13. Tian, Z., **Wei, J.**[#], and Li, Z. How important is satellite-retrieved aerosol optical depth in deriving surface PM_{2.5} using machine learning? *Remote Sensing*, 2023, 15(15), 3780. https://doi.org/10.3390/rs15153780
- Wang, L., Xu, T., Wang, Q., Ni, H., Yu, X., Song, C., Li, Y., Li, F., Meng, T., Sheng, H., Cai, X., Dai, T., Xiao, L., Zeng, Q., Guo, P., Wei, J.*, and Zhang, X. Exposure to fine particulate matter constituents and human semen quality decline: a multicenter study. *Environmental Science & Technology*, 2023, 57(35), 13025–13035. https://doi.org/10.1021/acs.est.3c03928
- 15. Wang, Y., Wei, J.*, Zhang, Y., Guo, T., Chen, S., Wu, W., Chen, S., Li, Z., Qu, Y., Xiao, J., Deng, X., Liu, Y., Du, Z., Zhang, W., and Hao, Y. Estimating causal links of long-term exposure to particulate matters with all-cause mortality in South China. *Environment International*, 2023, 171, 107726. https://doi.org/10.1016/j.envint.2022.107726
- 16. Wang, Y., Jiang, J., Chen, L., Guo, T., Chen, S., Du, Z., **Wei, J.***, Zhang, W., and Hao, Y. Is COPD mortality in South China causally linked to the long-term PM1 exposure? Evidence from a large community-based cohort. *Ecotoxicology and Environmental Safety*, 2023, 263, 115299. https://doi.org/10.1016/j.ecoenv.2023.115299
- 17. Xu, R., Huang, S., Shi, C., Wang, R., Liu, T., Li, Y., Zheng, Y., Lv, Z., **Wei, J.***, Sun, H., and Liu, Y. Extreme temperature events, fine particulate matter, and myocardial infarction mortality. *Circulation*, 2023, 148, 312–323. https://doi.org/10.1161/CIRCULATIONAHA.122.063504
- 18. Zhang, F., Tang, H., Zhao, D., Zhang, X., Zhu, S., Zhao, G., Zhang, X., Li, T., Wei, J.*, Li, D., and Zhu, W. Short-term exposure to ambient particulate matter and mortality among HIV/AIDS patients: Case-crossover evidence from all counties of Hubei province, China. *Science of The Total Environment*, 2023, 857, 159410. https://doi.org/10.1016/j.scitotenv.2022.159410
- 19. Zhang, X., Zhang, F., Gao, Y., Zhong, Y., Zhang, Y., Zhao, G., Zhu, S., Zhang, X., Li, T., Chen, B., Han, A., **Wei, J.***, Zhu, W., and Li, D. Synergic effects of PM₁ and thermal inversion on the incidence of small for gestational age infants: a weekly-based assessment. *Journal of Exposure Science & Environmental Epidemiology*, 2023, 1-11. https://doi.org/10.1038/s41370-023-00542-0
- 20. Zhang, Y., **Wei, J.***, Liu, C., Cao, W., Zhang, Z., Li, Y., Zeng, Q., and Sun, S. Association between ambient PM₁ and semen quality: A cross-sectional study of 27,854 men in China. *Environment International*, 2023, 175, 107919. https://doi.org/10.1038/s41370-023-00542-0
- 21. Zhou, W., Wen, Z., Peng, W., Wang, X., Wang, W., **Wei, J.***, and Xiong, H. Association of ambient particulate matter with hospital admissions, length of hospital stay, and hospital costs due to cardiovascular disease: timeseries analysis based on data from the Shanghai Medical Insurance System from 2016 to 2019. *Environmental Sciences Europe*, 2023, 46, 46. https://doi.org/10.1186/s12302-023-00754-z

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- 22. **Wei, J.***, Li, Z., Li, K., Dickerson, R., Pinker, R., Wang, J., Liu, X., Sun, L., Xue, W., and Cribb, M. Full-coverage mapping and spatiotemporal variations of ground-level ozone (O₃) pollution from 2013 to 2020 across China. *Remote Sensing of Environment*, 2022, 270, 112775. https://doi.org/10.1016/j.rse.2021.112775 (**ESI Hot and Highly Cited Paper**) [Citations = 140]
- 23. **Wei, J.***, Liu, S., Li, Z., Liu, C., Qin, K., Liu, X., Pinker, R., Dickerson, R., Lin, J., Boersma, K., Sun, L., Li, R., Xue, W., Cui, Y., Zhang, C., and Wang, J. Ground-level NO₂ surveillance from space across China for high resolution using interpretable spatiotemporally weighted artificial intelligence. *Environmental Science & Technology*, 2022, 56(14), 9988–9998. https://doi.org/10.1021/acs.est.2c03834 (**ESI Highly Cited Paper**)

- 24. **Wei, J.***, Li, Z., Sun, L., Xue, X., Ma, Z., Liu, L., Fan, T., and Cribb, M. Extending the EOS long-term PM_{2.5} data records since 2013 in China: application to the VIIRS Deep Blue aerosol products. *IEEE Transactions on Geoscience and Remote Sensing*, 2022, 60, 4100412. https://doi.org/10.1109/TGRS.2021.3050999
- 25. Chen, L., Gao, D., Ma, T., Chen, M., Li, Y., Ma, Y., Wen, B., Jiang, J., Wang, X., Zhang, J., Chen, S., Wu, L., Li, W., Liu, X., Guo, X., Huang, S., Wei, J.*, Song, Y., Ma, J., and Dong, Y. Ambient gaseous pollutant exposure and incidence of visual impairment among children and adolescents: fndings from a longitudinal, two-center cohort study in China. *Environmental Science and Pollution Research*, 2022, 29, 73262–73270. https://doi.org/10.1007/s11356-022-20025-3
- 26. He, F., **Wei, J.**[#], Dong, Y., Liu, C., Zhao, K., Peng, W., Lu, Z., Zhang, B., Xue, F., Guo, X., and Jia, X. Associations of ambient temperature with mortality for ischemic and hemorrhagic stroke and the modification effects of greenness in Shandong Province, China. *Science of The Total Environment*, 2022, 851, 158046. https://doi.org/10.1016/j.scitotenv.2022.158046
- 27. Li, X., Xue, W., Wang, K., Che, Y., and **Wei, J.*** Environmental regulation and synergistic effects of PM_{2.5} control in China. *Journal of Cleaner Production*, 2022, 337, 130438. https://doi.org/10.1016/j.jclepro.2022.130438
- 28. Lin, H., Zhu, J., Jiang, P., Cai, Z., Yang, X., Zhou, Z., and Wei, J.* Assessing drivers of coordinated control of ozone and fine particulate pollution: Evidence from Yangtze River Delta in China. *Environmental Impact Assessment Review*, 2022, 96, 106840. https://doi.org/10.1016/j.eiar.2022.106840
- 29. Liu, W., Wei, J.*, Cai, M., Qian, Z., Long, Z., Wang, L., Vaughn, M., Aaron, H., Tong, X., Li, Y., Yin, P., Lin, H., and Zhou, M. Particulate matter pollution and asthma mortality in China: A nationwide time-stratified case-crossover study from 2015 to 2020. *Chemosphere*, 2022, 308, 136316. https://doi.org/10.1016/j.chemosphere.2022.136316
- 30. Song, J., Du, P., Yi, W., **Wei, J.***, Fang, J., Pan, R., Zhao, F., Zhang, Y., Xu, Z., Sun, Q., Liu, Y., Chen, C., Cheng, J., Liu, Y., Li, T., Su, H., and Shi, X. Using an exposome-wide approach to explore the impact of urban environments on blood pressure among adults in Beijing–Tianjin–Hebei and surrounding areas of China. *Environmental Science & Technology*, 2022, 56, 8395–8405. https://doi.org/10.1021/acs.est.1c08327
- 31. Song, J., Ding, Z., Zheng, H., Xu, Z., Cheng, J., Pan, R., Yi, W., **Wei, J.***, and Su, H. Short-term PM₁ and PM_{2.5} exposure and asthma mortality in Jiangsu Province, China: What's the role of neighborhood characteristics? *Ecotoxicology and Environmental Safety*, 2022, 241, 113765. https://doi.org/10.1021/acs.est.1c08327
- 32. Wang, L., Zhang, J., Wei, J.*, Zong, J., Lu, C., Du, Y., and Wang, Q. Role of liver enzymes in the relationship between particulate matter exposure and diabetes risk: a longitudinal cohort study. *Environmental Pollution*, 2022, 312, 120020. https://doi.org/10.1016/j.envpol.2022.120020
- 33. Wang, X., Guo, B., Yang, X., Li, J., Baima, Y., Yin, J., Yu, J., Xu, H., Zeng, C., Feng, S., **Wei, J.***, Hong, F., and Zhao, X. Role of liver enzymes in the relationship between particulate matter exposure and diabetes risk: a longitudinal cohort study. *Journal of Clinical Endocrinology & Metabolism*, 2022, 107, e4086–e4097. https://doi.org/10.1210/clinem/dgac438
- 34. Wang, Y., Cao, R., Xu, Z., Jin, J., Wang, J., Yang, T., **Wei, J.***, Huang, J., and Li, G. Long-term exposure to ozone and diabetes incidence: A longitudinal cohort study in China. *Science of the Total Environment*, 2022, 816, 151634. https://doi.org/10.1016/j.scitotenv.2021.151634
- 35. Wu, H., Zhang, B., **Wei, J.**#, Lu, Z., Zhao, M., Liu, W., Bovet, P., Guo, X., and Xi, B. Short-term effects of exposure to ambient PM₁, PM_{2.5}, and PM₁₀ on ischemic and hemorrhagic stroke incidence in Shandong Province, China. *Environmental Research*, 2022, 212, 113350. https://doi.org/10.1016/j.envres.2022.113350
- 36. Wu, H., Zhang, Y., Zhao, M., Liu, W., Magnussen, C., **Wei, J.***, and Xi, B. Short-term effects of exposure to ambient PM₁ on blood pressure in children and adolescents aged 9 to 18 years in Shandong Province, China. *Atmospheric Environment*, 2022, 283, 119180. https://doi.org/10.1016/j.atmosenv.2022.119180
- 37. Xiong, J., Li, J., Wu, X., Wolfson, J., Lawrence, J., Stern, R., Koutrakis, P., **Wei, J.***, and Huang, S. The association between daily-diagnosed COVID-19 morbidity and short-term exposure to PM₁ is larger than associations with PM_{2.5} and PM₁₀. *Environmental Research*, 2022, 210, 113016. https://doi.org/10.1016/j.envres.2022.113350
- 38. Xu, R., Wei, J.*, Liu, T., Li, Y., Yang, C., Shi, C., Chen, G., Zhou, Y., Sun, H., and Liu, Y. Association of short-term exposure to ambient PM1 with total and cause-specific cardiovascular disease mortality. *Environment International*, 2022, 169, 107519. https://doi.org/10.1016/j.envint.2022.107519
- 39. Xue, W., Zhang, J., Hu, X., Yang, Z., and **Wei, J.*** Hourly seamless surface O₃ estimates by integrating the chemical transport and machine learning models in the Beijing-Tianjin-Hebei region. *International Journal of Environmental Research and Public Health*, 2022, 19, 8511. https://doi.org/10.3390/ijerph19148511

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