Jing Wei, Ph.D. (Updated to 1/2024)

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Biography

I specialize in air quality, focusing on aerosols, particulate matter and chemical composition, and trace (polluted and greenhouse) gases utilizing satellite remote sensing, big data, and artificial intelligence (machine and deep learning), and assessing the impacts of air pollution and extreme weather on the environment, health, and climate. I have authored over **80** papers as (co-) first or corresponding authors in leading journals like *Nature Communications*, *The Lancet Planetary Health*, *Remote Sensing of Environment*, *Environmental Science & Technology*, and *JGR: Atmospheres*, including **7 ESI Hot (Top < 0.1%) papers** and **15 ESI Highly Cited (Top < 1%) papers** indicated by the *Web of Science*, including one first-author paper cited over **400** times. My total citations are **6000+** times with an H-index of **41**. I was the sole recipient of the **AGU James R. Holton Award,** ***Remote Sensing*** **Young Investigator Award,** ranked in the top **0.1%** highly cited authors (Atmospheric Sciences) over the past decade (OpenAlex), 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 *JGR: Atmospheres*. I have generated high-resolution and high-quality datasets of air pollutants for the Global World (GHAP), China (CHAP), and the United States (USHAP), which have been widely used, leading to > **280** applied publications.

Employment

2023/09–Present: Assistant Research Scientist, Department of Atmospheric and Oceanic Science, Earth System Science Interdisciplinary Center, University of Maryland, College Park, USA.
2022–2023: Postdoctoral (Faculty Research) Associate, Department of Atmospheric and Oceanic Science, Earth System Science Interdisciplinary Center, University of Maryland, College Park, USA.
2021–2022: Postdoctoral Research Scholar, Department of Chemical and Biochemical Engineering, University of Iowa, USA.
2017–2018: Research Assistant, Center for Earth System Science, Tsinghua University, China.
2017: Research Assistant, Institute of Space and Earth Information Science, Chinese University of Hong Kong, China.

Education

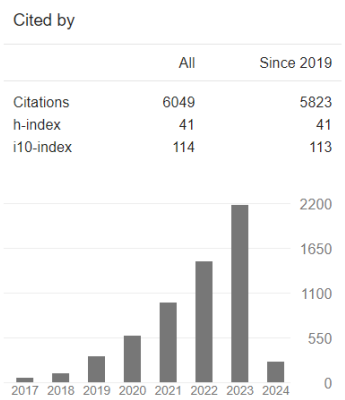
2019–2021: Joint Ph.D. in Atmospheric Sciences, University of Maryland, College Park, USA.
2018–2021: Ph.D. in Global Environmental Change (Geography), Beijing Normal University, China.

Research Interests

- Atmospheric aerosols, particulate matter (PM) and chemical composition
- Atmospheric trace (ambient polluted and greenhouse) gases (e.g., O_3, NO_2, SO_2, and CO)
- Air pollutant modelling and health exposure assessment
- Impacts of air pollution and extreme weather (e.g., hot waves) on environmental health
- Cloud and cloud shadow detection for satellite remote sensing imagery
- (Explainable) Artificial Intelligence (machine, deep, and transfer learning)
- Big data (e.g., satellite, ground, reanalysis, and model data)

Publications and Citations

- First/corresponding author: **84** (A full list is provided on Pages 4–10)
- Book Chapters: 2
- Google Scholar: ***H-index*** = 41, ***Total Citations*** = 6,049
- Web of Science: ***H-index*** = 38, ***Total Citations*** = 4,786
- Scopus: ***H-index*** = 39, ***Total Citations*** = 5,554



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Awards and Honors

- 2023: *Remote Sensing* Young Investigator Award **(Awarded to one young scientist 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 to one young scientist worldwide annually)**: *For exceptional contributions to satellite remote sensing of aerosols, gases, and clouds, and assessing the impacts of air pollution, weather, and climate*
- 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

- Top **0.1%** highly cited authors (Atmospheric Sciences) over the past decade, OpenAI's Semantic Scholar Percentiles (OpenAlex)
- 2022, 2021, 2020: World's Top 2% Scientists (Earth & Environmental Sciences), 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* **[18]**:
  - *Remote Sensing of Environment* (Wei et al., 2022, 2021, 2019)
  - *Environmental Science & Technology* (Wei et al., 2022; 2019)
  - *Environment International* (Wei et al., 2021)
  - *Atmospheric Chemistry and Physics* (Wei et al., 2021, 2020, 2019)
  - *Atmospheric Environment* (Wei et al., 2019, 2018)
  - *Journal of Cleaner Production* (Xu et al., 2021; Xue et al., 2021)
  - *Science of The Total Environment* (Liu et al., 2021)
  - *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 **[3]** published in:
  - *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 (190+ 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: **26** 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: **20** talks (**3** invited), **8** posters]

- **Wei, J.** Separating Daily 1 km $PM_{2.5}$ Inorganic Chemical Composition from Space in China since 2000 via Deep Learning. American Geophysical Union (AGU) Fall Meeting, December 11-15 2023, San Francisco, USA. **(Highlighted Talk)**
- **Wei, J.** Wildfire emissions disrupt $PM_{2.5}$, BC, and mortality burden trends across the continental US. American Geophysical Union (AGU) Fall Meeting, December 11-15 2023, San Francisco, USA.

- **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)**

Teaching Experience

- Teaching Assistant, AOSC625: *Remote Sensing of Atmospheric Properties by Satellite***,** University of Maryland, College Park, USA.

Student Guidance

- Tianshu Xu (Postgraduate student, 2023–Present): 1 paper in preparation
- Zeyu Yang (Postgraduate student, 2022–Present): 1 paper in preparation
- Fan Cheng (Postgraduate student, 2022–Present): 1 paper under review in *Remote Sensing of Environment*
- Zhihui Wang (Postgraduate student, 2022–2023): 1 paper major revised in *Remote Sensing of Environment*
- 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. Wu, W., Wu, G., **Wei, J.**#, Lawrence, W., Deng, X., Zhang, Y., Chen, S., Wang, Y., Lin, X., Chen, D., Ruan, X., Lin, Q., Li, Z., Lin, Z., Hao, C., Du, Z., Zhang, W., and Hao, Y. Potential causal links and mediation pathway between urban greenness and lung cancer mortality: result from a large cohort (2009 to 2020). *Sustainable Cities and Society*, 2024, 101, 105079. https://doi.org/10.1016/j.scs.2023.105079
2. Xu, R., Sun, H., Zhong, Z., Zheng, Y., Liu, T., Li, Y., Liu, L., Luo, L., Wang, S., Lv, Z., Huang, S., Shi, C., Chen, W., **Wei, J.***, Xia, W., and Liu, Y. Ozone, heat wave, and cardiovascular disease mortality: A population-based case-crossover study. *Environmental Science & Technology*, 2024. https://doi.org/10.1021/acs.est.3c06889
3. Zhang, Y., **Wei, J.**#, Zhao, S., Zeng, Q., Sun, S., and Cao, W. Ambient fine particulate matter constituents and semen quality among adult men in China. *Journal of Hazardous Materials*, 2024, 465, 133313. https://doi.org/10.1016/j.jhazmat.2023.133313

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4. **Wei, J.***, Li, Z., Lyapustin, A., Wang, J., Dubovik, O., Schwartz, J., Sun, L., Li, C., Liu, S., and Zhu, T. First close insight into global daily gapless 1 km $PM_{2.5}$ pollution, variability, and health impact. *Nature Communications*, 2023, 14, 8349. https://doi.org/10.1038/s41467-023-43862-3
5. **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, 7, e963–e975. https://doi.org/10.1016/S2542-5196(23)00235-8
   Media Outlets

6. **Wei, J.***, Li, Z., Wang, J., Li, C., Gupta, P., and Cribb, M. Ground-level gaseous pollutants (NO_2, SO_2, 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)**
7. **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, 57(46), 18282–18295. https://doi.org/10.1021/acs.est.3c00272
8. 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)**
9. 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)**
10. Chen, S., Zhang, Y., Wang, Y., Lawrence, W., Rhee, J., Guo, T., Chen, S., Du, Z., Wu, W., Li, Z., **Wei, J.***, Hao, Y., and Zhang, W. Long-term particulate matter exposure and the risk of neurological hospitalization: Evidence from causal inference of a large longitudinal cohort in South China. *Chemosphere*, 2023, 345, 140397. https://doi.org/10.1016/j.chemosphere.2023.140397
11. 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 (PM_1) and intermodal particulate matter ($PM_{1\text{-}2.5}$) 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
12. 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
13. 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 ($PM_{1\text{-}2.5}$) 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
14. Lin, X., Cai, M., Tan, K., Liu, E., Wang, X., Song, C., **Wei, J.***, Lin, H., and Pan, J. Ambient particulate matter and in-hospital case fatality of acute myocardial infarction: A multi-province cross-sectional study in China. *Ecotoxicology and Environmental Safety*, 2023, 268, 115731. https://doi.org/10.1016/j.ecoenv.2023.115731
15. 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
16. 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
17. 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
18. 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
19. 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
20. 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

21. 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
22. Wang, Y., Liu, Q., Tian, Z., Cheng, B., Guo, X., Wang, H., Zhang, B., Xu, Y., Sun, L., Hu, B., Chen, G., Sheng, J., Liang, C., Tao, F., **Wei, J.***, and Yang, L. Short-term effects of ambient PM_1, $PM_{2.5}$, and PM_{10} on internal metal/metalloid profiles in older adults: A distributed lag analysis in China. *Environment International*, 2023, 182, 108341. https://doi.org/10.1016/j.envint.2023.108341
23. 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
24. 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
25. 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
26. 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 PM_1 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
27. Zhang, Y., **Wei, J.**[#], Liu, C., Cao, W., Zhang, Z., Li, Y., Zeng, Q., and Sun, S. Association between ambient PM_1 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
28. 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: time-series 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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29. **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 (O_3) 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 = 173]**
30. **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 NO_2 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)**
31. **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
32. 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
33. 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
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