

# Jing Wei, Ph.D. (Updated to 9/2023)

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

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**Homepage:** <https://weijing-rs.github.io/index.html>

## Biography

I am specialized in air quality, aerosols, particulate matter (PM), trace gases, and clouds by means of remote sensing, big data, and artificial intelligence (AI), and accessing the impacts of air pollution on environmental health. Up to now, I have authored over **70** SCI papers as (co-)first or (co-)corresponding authors in leading journals like *RSE*, *ES&T*, *JGR*, *ACP*, and *TGRS*, 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 **330** times. My total citations are **5100+** times with an H-index of **38** (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 (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 long-term, high-resolution and high-quality datasets of ambient air pollutants in China (CHAP), the United States (USHAP), and the Global World (GHAP), which have been widely used, leading to more than **210** applied publications.

## Work Experience

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

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, Beijing Normal University, China, 2021.

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

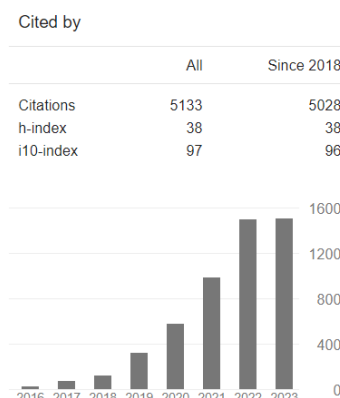
B.Sc. in Remote Sensing Science and Technology, Shandong University of Science and Technology, China, 2014.

## Research Interests

- Remote sensing of particulate matter and chemical composition
- Remote sensing of trace and polluted gases
- Remote sensing of atmospheric aerosols
- Air pollutant modelling and health exposure
- Impacts of air pollution on public health, environment, and economy
- Cloud and cloud shadow detection
- (Explainable) Artificial Intelligence (machine, deep, and transfer learning)
- Big data

## Publications and Citations

- First/corresponding author: **75** (A full list is provided on Page 5–10)
- Book Chapters: **2**
- [Google Scholar](#): **H-index** = 38, **Total Citations** = 5,133
- [Web of Science](#): **H-index** = 34, **Total Citations** = 4,124
- Selected publications (5):



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- **Wei, J.**, et al. Reconstructing 1-km-resolution high-quality PM<sub>2.5</sub> data records from 2000 to 2018 in China: spatiotemporal variations and policy implications. *Remote Sensing of Environment*, 2021, 252, 112136. **(ESI Hot and Highly Cited Paper, Journal Most Cited Articles since 2019/2020, Top 100 Most Cited Chinese Papers Published in International Journals in 2021, ESSIC 2022 Best Paper Award)** [Citations = 351]
- **Wei, J.**, et al. Estimating 1-km-resolution PM<sub>2.5</sub> concentrations across China using the space-time random forest approach. *Remote Sensing of Environment*, 2019, 231, 111221. **(ESI Hot and Highly Cited Paper, Journal Most Cited Articles since 2018/2019)** [Citations = 339]
- **Wei, J.**, et al. Full-coverage mapping and spatiotemporal variations of ground-level ozone (O<sub>3</sub>) pollution from 2013 to 2020 across China. *Remote Sensing of Environment*, 2022, 270, 112775. **(ESI Hot and Highly Cited Paper)** [Citations = 127]
- **Wei, J.**, et al. Satellite-derived 1-km-resolution PM<sub>1</sub> concentrations from 2014 to 2018 across China. *Environmental Science & Technology*, 2019, 53(22), 13265–13274. **(ESI Hot and Highly Cited Paper)** [Citations = 170]
- **Wei, J.\***, et al. Separating daily 1 km PM<sub>2.5</sub> 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>

### Awards and Honors

- 2023: Young Investigator Award, *Remote Sensing: 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): *For exceptional contributions to satellite remote sensing of aerosols, particulate matter and trace gases, and assessing the impacts of air pollution.*
- 2022: World's Top 2% Scientists (2021), Stanford University Analysis & Mendeley
- 2022: Top 100 Most Cited Chinese Papers Published in International Journals (2021), Institute of Scientific and Technology Information of China
- 2022: Best Paper Award, Earth System Science Interdisciplinary Center, University of Maryland
- 2021: World's Top 2% Scientists (2020), Stanford University Analysis & Mendeley
- 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
- 2021: Outstanding Graduates (Ph.D.), Beijing
- 2021: Special Prize for Graduate Academic Innovation, Beijing Normal University
- 2019: National Scholarship (Ph.D.), Beijing Normal University
- 2019: National Scholarship (Ph.D.), Beijing Normal University
- 2018: Special Scholarship for Doctoral Freshmen, Beijing Normal University
- 2017: Outstanding Graduates (M.Sc.), Shandong Province
- 2016: Outstanding Scientific & Technological Innovation Achievement Award (Second Prize), Shandong Province
- 2016: National Scholarship (M.Sc.), Shandong University of Science and Technology
- 2015: National Scholarship (M.Sc.), Shandong University of Science and Technology
- 2014: Outstanding Graduates (B.Sc.), Shandong Province

### Authorship Recognitions

- 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)

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- *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]:
  - 1<sup>st</sup> most cited paper, *Remote Sensing of Environment* (Wei et al., 2021)
  - 1<sup>st</sup> most cited paper, *Atmospheric Environment* (Wei et al., 2019)
  - 1<sup>st</sup> 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]:
  - *Hypertension* (Xu et al., 2021)
  - *Atmospheric Chemistry and Physics* (Liu et al., 2020)
  - *Journal of Geophysical Research Atmospheres* (Wei et al., 2018)

## 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
- Interdisciplinary Research Fund for the First-Year Doctoral Candidates [BNUXKJC1808], Beijing Normal University, 2018–2019, PI
- Graduate Innovation Fund [SDKDYC170103], Shandong University of Science and Technology, 2016–2017, PI
- Graduate Innovation Fund [YC150103], Shandong University of Science and Technology, 2015–2016, PI
- Graduate Innovation Fund [YC140307], Shandong University of Science and Technology, 2014–2015, PI

## 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
  - Topic Editor, *Big Earth Data* (IF = 4.0), 2021–Present
  - Editorial Board Member: *International Journal of Digital Earth* (IF = 5.1), 2022–Present
  - 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, Early Career and Postgraduate Committee (ECPC), Atmospheric Environmental Remote Sensing Society (AERSS), 2022–Now
- Convener/ Chair of conference symposium/session:
  - Co-Convener/Co-Chair, Asia Oceania Geosciences Society (AOGS) Section, 2022 (**Top Conveners**)

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- 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 Lancet Regional Health - Americas*; *Earth System Science Data*; *Big Earth Data*; *Energy Economics*; *Journal of Quantitative Spectroscopy and Radiative Transfer*; et al.

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

- Atmospheric Science Early Career Seminar, American Geophysical Union (AGU), June 15, 2023.
- Climate Chedann Seminar, Climate Dynamics Group, February 4, 2023.
- AOSC Department Seminar, University of Maryland, College Park, November 3, 2022.
- University of Science and Technology of China, China, October 21, 2022.
- MDPI Remote Sensing, June 25, 2022. **(Chair)**
- China Research Academy of Environmental Sciences, July 8, 2021.
- China Clean Air Policy Partnership, Tsinghua University, China, April 6, 2021.
- Lanzhou University, China, March 26, 2021.
- Brown bag seminar, University of Maryland, College Park, February 5, 2021.
- Nanjing University of Information Science and Technology, China, December 29, 2020.
- NASA Goddard Space Flight Center, Greenbelt, December 1, 2020.
- Ministry of Ecology and Environment Center for Satellite Application on Ecology and Environment, China, November 25, 2020.
- Zhejiang University, China, September 20, 2020.
- Peking University, China, July 8, 2019.

### Selected Presentations [Conference Presentations: 16 talks (3 invited), 8 posters]

- **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/VIIIRS 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<sub>2.5</sub> 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)
- Yulei Chi (Postgraduate student, 2018–2019): 1 paper published in *Acta Optica Sinica* (2019)
- Quan Wang (Postgraduate student, 2018–2019): 1 paper published in *Acta Optica Sinica* (2018)
- Tianlong Zhang (Undergraduate student, 2016): 1 paper published in *Spectroscopy and Spectral Analysis* (2016)

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### First/corresponding-authors' publications (75)

(Full list at: <https://weijing-rs.github.io/publication.html>)

(\*: Corresponding author; #: Co-first author)

#### 2023 (19)

1. **Wei, J.\***, Li, Z., Wang, J., Li, C., Gupta, P., and Cribb, M. Ground-level gaseous pollutants (NO<sub>2</sub>, SO<sub>2</sub>, 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**)
2. **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<sub>2.5</sub> 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>
3. 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-stratified 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**)
4. 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**)
5. 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<sub>1</sub>) and intermodal particulate matter (PM<sub>1-2.5</sub>) 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>
6. 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>
7. 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<sub>1-2.5</sub>) 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>
8. 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>
9. 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>
10. 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>
11. Tian, Z., **Wei, J.#**, and Li, Z. How important is satellite-retrieved aerosol optical depth in deriving surface PM<sub>2.5</sub> using machine learning? *Remote Sensing*, 2023, 15(15), 3780. <https://doi.org/10.3390/rs15153780>
12. 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>
13. 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>



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14. 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 PM<sub>1</sub> exposure? Evidence from a large community-based cohort. *Ecotoxicology and Environmental Safety*, 2023, 263, 115299. <https://doi.org/10.1016/j.ecoenv.2023.115299>
15. 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>
16. 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>
17. 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<sub>1</sub> 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>
18. Zhang, Y., **Wei, J.#**, Liu, C., Cao, W., Zhang, Z., Li, Y., Zeng, Q., and Sun, S. Association between ambient PM<sub>1</sub> 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>
19. 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>

## 2022 (19)

20. **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<sub>3</sub>) 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)**
21. **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<sub>2</sub> 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)**
22. **Wei, J.\***, Li, Z., Sun, L., Xue, X., Ma, Z., Liu, L., Fan, T., and Cribb, M. Extending the EOS long-term PM<sub>2.5</sub> 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>
23. 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: findings 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>
24. 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>
25. Li, X., Xue, W., Wang, K., Che, Y., and **Wei, J.\*** Environmental regulation and synergistic effects of PM<sub>2.5</sub> control in China. *Journal of Cleaner Production*, 2022, 337, 130438. <https://doi.org/10.1016/j.jclepro.2022.130438>
26. 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>
27. 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>
28. 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

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- 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>
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