Jing Wei (Ph.D.)

College of Environmental Sciences and Engineering, Peking University, Beijing 100871, China
Tel: 15652653132, **Email:** jingwei@pku.edu.cn, **Homepage:** https://weijing-rs.github.io/index.html

Biography

I specialize in air quality, focusing on aerosols, particulate matter (PM) and chemical composition, and trace (polluted and greenhouse) gases utilizing satellite remote sensing, big data, and artificial intelligence, and assessing the impacts of air pollution and extreme weather on the environment, health, and climate. I have authored **100** papers as first or corresponding authors in leading journals like *Nature Communications*, *The Lancet Planetary Health*, *Remote Sensing of Environment*, and *Environmental Science & Technology*, including **7 ESI Hot (Top < 0.1%) papers** and **17 ESI Highly Cited (Top < 1%) papers** indicated by the *Web of Science*, and **7** papers have been cited 200+ times, including one over **900** times. My total citations are over **11,000** times with an H-index of **51**. I was the sole recipient of the **AGU James R. Holton Award (2022), *Remote Sensing* Young Investigator Award (2023),** ranked in the top **0.1%** highly cited authors (Atmospheric Sciences) over the past decade (OpenAlex), and in the list of **World's Top 2% Scientists since 2021**. I have served as an Editor of *Earth System Science Data*, and Associate Editor of *JGR: Atmospheres*. My research has garnered attention from various media outlets, such as CBS News, Yahoo News, US News, The Hill, and others. I have generated high-resolution and high-quality air pollutant datasets for the Globe (GHAP), the United States (USHAP), and China (CHAP), which have contributed to over **400** applied publications.

I. Employment & Research Experience

Peking University, Beijing **2025 – Present**

- Tenure-Track Assistant Professor, College of Environmental Sciences and Engineering, Peking University, Beijing, China, 2025–Present

University of Maryland, College Park **2022 – 2025**

- Assistant Research Scientist, Department of Atmospheric and Oceanic Science, Earth System Science Interdisciplinary Center, 2024–2025
- Teaching Assistant (Grader), Department of Atmospheric and Oceanic Science, Course AOSC625: "*Remote Sensing of Atmospheric Properties by Satellite*", 2024–2025
- Teaching Assistant (Grader), Department of Atmospheric and Oceanic Science, Course AOSC424: "*Remote Sensing of the Atmosphere and Ocean*", 2024–2025
- Postdoctoral (Faculty Research) Associate, Department of Atmospheric and Oceanic Science, Earth System Science Interdisciplinary Center, 2022–2023

University of Iowa, Iowa City **2021 – 2022**

- Postdoctoral Research Scholar, Department of Chemical and Biochemical Engineering

Tsinghua University, Beijing **2017 – 2018**

- Research Assistant, Center for Earth System Science

Chinese University of Hong Kong, Hong Kong **2017 – 2017**

- Research Assistant, Institute of Space and Earth Information Science

II. Eudcation

- Joint Ph.D. in *Atmospheric Sciences*, University of Maryland, College Park, January 2021
- Ph.D. in *Global Environmental Change (Geography)*, Beijing Normal University, January 2021
- M.Sc. in *Photogrammetry and Remote Sensing*, Shandong University of Science and Technology, June 2017
- B.Sc. in *Remote Sensing Science and Technology*, Shandong University of Science and Technology, June 2014

III. Research Interests

- Atmospheric aerosols, particulate matter (PM) and chemical composition
- Atmospheric trace (polluted and greenhouse) gases (e.g., O_3, NO_2, CH_4, and CO_2)
- Air pollutant modelling and health exposure assessment

- Impacts of air pollution and extreme weather on environmental health
- (Explainable) Artificial Intelligence (machine learning, deep learning, and transfer learning)
- Big data (e.g., satellite, ground, reanalysis, and model data)

IV. Awards and Honors

- 2025: World's Top 2% Scientists (Career Long), Stanford University & Elsevier
- 2025, 2024, 2023, 2022, 2021: World's Top 2% Scientists (Single Year), Stanford University & Elsevier
- 2024: Best Paper Award, *Environmental Science & Technology*
- 2024: Best Paper Award, Earth System Science Interdisciplinary Center, University of Maryland
- 2023: Top **0.1%** highly cited authors (Atmospheric Sciences) over the past decade, OpenAlex
- 2023: Young Investigator Award, *Remote Sensing* **(Awarded to one young scientist worldwide per year)**
- 2022: James R. Holton Award, American Geophysical Union (AGU) **(Awarded to one young scientist worldwide per year)**: *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

V. 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* **[20]**:
  - *Environmental Science & Technology* (Wei et al., 2023, 2022, 2019)
  - *Remote Sensing of Environment* (Wei et al., 2022, 2021, 2019)
  - *Environment International* (Wei et al., 2021)
  - *Atmospheric Chemistry and Physics* (Wei et al., 2023, 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 Cover, Highlight, High Impact, or Editor's Choice Articles **[5]**:
  - *Journal of Geophysical Research Atmospheres* (Wei et al., 2018)
  - *Environmental Science & Technology* (Tian et al., 2024)
  - *Remote Sensing* (Tian et al., 2023)
  - *Hypertension* (Xu et al., 2021)
  - *Atmospheric Chemistry and Physics* (Liu et al., 2020)
- Top 100 Most Cited Chinese Papers Published in International Journals (Wei et al., *RSE*, 2021)

VI. Research Grants

- Project Title: *Generation of Integrated Aerosol Fine-Mode Fraction and Surface Particulate Matter from LEO- and GEO Satellites in Asia Using Machine-Learning Models*
  Role: **Co-I** Source of Support: NASA Support Period: 2021–2025
- Project Title: *Enrich and enhance the application of TEMPO and GEOS data products for regional air quality and public health management under smoke conditions*
  Role: **Co-I** Source of Support: NASA Support Period: 2021–2024

VII. Professional Service

- **Editorship**
  - Editor, *Earth System Science Data* (IF = 11.2), 2022–Present
  - Associate Editor, *Journal of Geophysical Research: Atmospheres* (IF = 3.8), 2023–Present
  - Associate Editor, *Remote Sensing* (IF = 4.2), 2022–Present
  - Topical Associate Editor, *IEEE Transactions on Geoscience and Remote Sensing* (IF = 7.5), 2024–Present
  - Youth Editor, *The Innovation* (IF = 33.2), 2022–Present
  - Editorial (Youth) Board Member: *International Journal of Digital Earth* (2023–Present), *Big Earth Data* (2021–2023), *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*, *Atmospheric Measurement Techniques*, *Sustainability*, *Frontiers in Earth Science*, *Frontiers in Environmental Science*, *Frontiers in Public Health*, *Atmosphere*, *National Remote Sensing Bulletin*
- **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, AERSS, 2022-2023
- **Award Committee & Conference**
  - Chair, ESSIC Best First-Author Paper Award Committee, University of Maryland, 2023
  - Member, Evaluation Committee for the *Remote Sensing* Best PhD Thesis Award, 2024
  - Member, Evaluation Committee for the *Remote Sensing* Travel Award, 2024
  - Member, American Geophysical Union (AGU) GeoHealth Working Group, 2024-Present
  - Primary Convener (Chair), American Geophysical Union (AGU) Session, 2024
  - Co-Convener (Co-Chair), Asia Oceania Geosciences Society (AOGS) Session, 2022 **(Top Conveners)**
- **Peer review for Proposals, Books & Journals** (220+ peer reviews for 50+ journals):
  - Research Proposal review: NASA ROSES Panelist & Reviewer
  - Book Proposal review: Elsevier
  - Remote Sensing journals: *Remote Sensing of Environment, IEEE Transactions on Geoscience and Remote Sensing, ISPRS Journal of Photogrammetry and Remote Sensing, et al.*
  - Atmospheric Science journals: *Journal of Geophysical Research: Atmospheres, Geophysical Research Letters, Atmospheric Chemistry and Physics, npj Climate and Atmospheric Science; et al.*
  - Environmental Science Journals: *Environmental Science & Technology, Environment International, Environmental Pollution, Science of the Total Environment, Environmental Research Letters, et al.*
  - Public Health and other journals: *The Innovation, Environmental Health Perspectives, The Lancet Regional Health - Americas, Earth System Science Data, Energy Economics; et al.*

VIII. Student Guidance (Co-Supervision/Mentoring)

- **PhD Students**
  - Yulong Fan, Major in Surveying and Mapping Science and Technology, Shandong University of Science and Technology, 2024–Present
    - Published one paper in *ISPRS Journal of Photogrammetry and Remote Sensing* titled: *Unveiling diurnal aerosol layer height variability from space using deep learning.* I am the corresponding author.
  - Shulin Pang, Major in Photogrammetry and Remote Sensing, Shandong University of Science and Technology, and currently a PhD Candidate at the Beijing Normal University, 2022–Present

- Published one paper in *Remote Sensing* titled: *Convolutional neural network-driven improvements in global cloud detection for Landsat 8 and transfer learning on Sentinel-2 imagery.* I am the corresponding author.

➢ Zhaoyu Wang, Major in Surveying and Mapping Science and Technology, Shandong University of Science and Technology, 2025–Present

- **Master's Students**
  - ➢ Zeyu Yang, Major in Global Environmental Change, Beijing Normal University, 2022–Present
    - Published one paper in *Remote Sensing of Environment* titled: *Two-decade surface ozone (O_3) pollution in China: enhanced fine-scale estimations and environmental health implications*. I am the corresponding author.
  - ➢ Fan Cheng, Major in Global Environmental Change, Beijing Normal University, 2022–Present
    - Published one paper in *Remote Sensing of Environment* titled: *First retrieval of 24-hourly 1-km-resolution gapless surface ozone (O_3) from space in China using artificial intelligence: diurnal variations and implications for air quality and phytotoxicity*. I am the corresponding author.
  - ➢ Zhihui Wang, Major in Photogrammetry and Remote Sensing, Shandong University of Science and Technology, 2022–Present.
    - Published one paper in *Remote Sensing of Environment* titled: *Global aerosol retrieval over land from Landsat imagery integrating Transformer and Google Earth Engine*. I am the corresponding author.
  - ➢ Zhongyan Tian, Major in Global Environmental Change, Beijing Normal University: Status – Completed (2022–2023), and currently a Teacher at the Chang'an No.1 High School.
    - Published one paper in *Remote Sensing* titled: *How important is satellite-retrieved aerosol optical depth in deriving surface $PM_{2.5}$ using machine learning?*
  - ➢ Xinyao Li, Major in Business Management, Beijing Normal University: Status – Completed (2021–2022), and currently a PhD Candidate at the Ocean University of China
    - Published one paper in *Journal of Cleaner Production* titled: *Retrieving Environmental regulation and synergistic effects of $PM_{2.5}$ control in China*. I am the corresponding author.
  - ➢ Zhendong Sun, Major in Surveying Engineering, Shandong University of Science and Technology: Status – Completed (2020–2021), and currently a PhD Candidate at the Wuhan University
    - Published one paper in *Remote Sensing* titled: *Retrieving high-resolution aerosol optical depth from GF-4 PMS imagery in Eastern China.*
- **Undergraduate Student**
  - ➢ Tianlong Zhang, Major in Remote Sensing Science and Technology, Shandong University of Science and Technology, Status – Completed (2015–2016)
    - Published one paper in *Spectroscopy and Spectral Analysis* titled: *Precipitable Water Vapor Retrieval with MODIS Near Infrared Data.* I am the corresponding author.

IX. Seminars & Conference Presentations

- **Selected Invited Seminars** [Total seminars: **30** talks (**1** Chair)]
  - ➢ **Wei, J.** Center for Astrophysics | Harvard & Smithsonian, USA, February Feb 20-21, 2025.
  - ➢ **Wei, J.** Yale University, USA, June 21, 2024.
  - ➢ **Wei, J.** Atmospheric Chemistry and Dynamics Laboratory, NASA, May 30, 2024.
  - ➢ **Wei, J.** University of Maryland, Baltimore County, March 1, 2024.
  - ➢ **Wei, J.** AeroCenter-CPC Seminar, NASA, USA, February 6, 2024.
  - ➢ **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.** MDPI *Remote Sensing* Seminar, June 25, 2022. **(Chair)**
  - ➢ **Wei, J.** China Research Academy of Environmental Sciences, July 8, 2021.
  - ➢ **Wei, J.** University of Maryland, College Park, MD USA, February 5, 2021.
  - ➢ **Wei, J.** Goddard Space Flight Center, NASA, USA, December 1, 2020.
  - ➢ **Wei, J.** Ministry of Ecology and Environment Center for Satellite Application on Ecology and Environment, China, November 25, 2020.
  - ➢ **Wei, J.** Peking University, China, July 8, 2019.

- **Selected Oral Presentations** [Total Presentations: **20** talks (**3** invited), **8** posters]
  - **Wei, J.** Monitoring global $PM_{2.5}$ and chemical composition and assessing their impact on public health. AOGS Annual Meeting, June 23-28, 2024, Pyeongchang, Gangwon-do, Korea. **(Invited Talk)**
  - **Wei, J.** Tracking ambient air pollution from space with AI. Annual Air Quality Research and Development Workshop. June 17, 2024, George Mason University, Fairfax, VA, USA. **(Lightning Talk)**
  - **Wei, J.** Tracking ambient air pollution from space: regional and global perspectives. GeoXO ACX Science Team Meeting, May 9, 2024, NOAA, College Park, USA. **(Invited Talk)**
  - **Wei, J.** Monitoring air pollution from space. Earth Day Symposium, April 29, 2024, University of Maryland, Baltimore County, USA. **(Invited Talk)**
  - **Wei, J.** Separating Daily 1 km $PM_{2.5}$ Inorganic Chemical Composition from Space in China since 2000 via Deep Learning. 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. 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, 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.** Tracking ambient air pollution from space integrating Big Data and artificial intelligence. AGU Fall Meeting, December 12–16, 2022, Chicago, IL, USA. **(Invited Talk)**

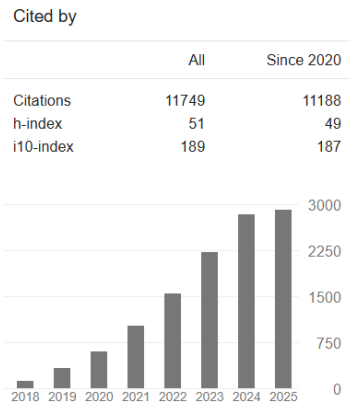
X. Peer-reviewed Publications

Total citation: **11,749**; H-index: **51**; i10-index: **189** (Google Scholar)

- First/corresponding author: **101**
- Book Chapters: 2

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

(Note *: Corresponding author; #: Co-first author) [Citations > 200]



Air Quality and Health (2)

1. **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. **Media Outlets (Nature Communities, UMD)**
2. **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. **Media Outlets (CBS News, Yahoo News, The Hill, U.S. News, et al.)**

Jing Wei (Ph.D.)

Particulate Matter (PM) and Chemical Composition (11)

3. **Wei, J.**, Li, Z., Lyapustin, A., Sun, L., Peng, Y., Xue, W., Su, T., and Cribb, M. Reconstructing 1-km-resolution high-quality $PM_{2.5}$ 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, Top 100 Most Cited Chinese Papers Published in International Journals, ESSIC 2022 Best Paper Award) [Citations = 970]
4. **Wei, J.**, Huang, W., Li, Z., Xue, W., Peng, Y., Sun, L., and Cribb, M. Estimating 1-km-resolution $PM_{2.5}$ 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) [Citations = 558]
5. **Wei, J.**, Li, Z., Cribb, M., Huang, W., Xue, W., Sun, L., Guo, J., Peng, Y., Li, J., Lyapustin, A., Liu, L., Wu, H., and Song, Y. Improved 1 km resolution $PM_{2.5}$ estimates across China using enhanced space-time extremely randomized trees. *Atmospheric Chemistry and Physics*, 2020, 20(6), 3273–3289. (ESI Hot and Highly Cited Paper) [Citations = 495]
6. **Wei, J.**, Li, Z., Guo, J., Sun, L., Huang, W., Xue, W., Fan, T., and Cribb, M. Satellite-derived 1-km-resolution PM_1 concentrations from 2014 to 2018 across China. *Environmental Science & Technology*, 2019, 53(22), 13265–13274. (ESI Hot and Highly Cited Paper) [Citations = 284]
7. **Wei, J.***, Li, Z., Xue, W., Sun, L., Fan, T., Liu, L., Su, T., and Cribb, M. The ChinaHighPM$_{10}$ dataset: generation, validation, and spatiotemporal variations from 2015 to 2019 across China. *Environment International*, 2021, 146, 106290. (ESI Highly Cited Paper) [Citations = 375]
8. **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. (ESI Highly Cited Paper)
9. **Wei, J.***, Li, Z., Pinker, R., Wang, J., Sun, L., Xue, W., Li, R., and Cribb, M. Himawari-8-derived diurnal variations of ground-level $PM_{2.5}$ pollution across China using the fast space-time Light Gradient Boosting Machine (LightGBM). *Atmospheric Chemistry and Physics*, 2021, 21, 7863–7880. (ESI Highly Cited Paper)
10. **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.
11. Lu, D., Mao, W., Zheng, L., Xiao, W., Zhang, L., and **Wei, J.*** Ambient $PM_{2.5}$ estimates and variations during COVID-19 pandemic in the Yangtze River Delta using machine learning and big data. *Remote Sensing*, 2021, 13(8), 1423.
12. 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.
13. Xue, W., **Wei, J.**[#], Zhang, J., Sun, L., Che, Y., Yuan, M., and Hu, X. Inferring near-surface $PM_{2.5}$ concentrations from the VIIRS Deep Blue aerosol product in China: A spatiotemporally weighted random forest model. *Remote Sensing*, 2021, 13, 505.

Trace (Polluted and Greenhouse) Gases (6)

14. **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. (ESI Hot and Highly Cited Paper) [Citations = 464]
15. **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. (ESI Highly Cited Paper)
16. **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. (ESI Hot and Highly Cited Paper)
17. Cheng, F., Li, Z., Yang, Z., Li, R., Wang, D., Jia, A., Li, K., Zhao, B., Wang, S., Yin, D., Li, S., Xue, W., Cribb, M., and **Wei, J.*** First retrieval of 24-hourly 1-km-resolution gapless surface ozone (O_3) from space in China using artificial intelligence: diurnal variations and implications for air quality and phytotoxicity. *Remote Sensing of Environment*, 2025, 316, 114482.

18. Yang, Z., Li, Z., Cheng, F., Lv, Q., Li, K., Zhang, T., Zhou, Y., Zhao, B., Xue, W., and **Wei, J.*** Two-decade surface ozone (O3) pollution in China: enhanced fine-scale estimations and environmental health implications. *Remote Sensing of Environment*, 2025, 317, 114459.
19. Xue, W., Zhang, J., Hu, X., Yang, Z., and **Wei, J.*** Hourly seamless surface O_3 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.

Atmospheric Properties: Algorithms, Products, and Improvements (21)

Algorithm Development:

20. **Wei, J.***, Wang, Z., Li, Z., Li, Z., Pang, S., Xi, X., Cribb, M., and Sun, L. Global aerosol retrieval over land from Landsat imagery integrating Transformer and Google Earth Engine. *Remote Sensing of Environment*, 2024, 315, 114404.
21. Fan, Y., Sun, L., Wang, Z., Pang, S., and **Wei, J.*** Unveiling diurnal aerosol layer height variability from space using deep learning. *ISPRS Journal of Photogrammetry and Remote Sensing*, 2025, 229, 211-222.
22. **Wei, J.**, Sun, L., Peng, Y., Wang, L., Zhang, Z., Bilal, M., and Ma., Y. An improved high-spatial-resolution aerosol retrieval algorithm for MODIS images over land. *Journal of Geophysical Research Atmospheres*, 2018, 123(21), 12291–12307. (Journal Highlight)
23. **Wei, J.**, Huang, B., Sun, L., Zhang, Z., Wang, L., and Bilal, M. A simple and universal aerosol retrieval algorithm for Landsat series images over complex surfaces. *Journal of Geophysical Research Atmospheres*, 2017, 122(24), 13338–13355.
24. **Wei, J.**, Li, Z., Peng, Y., Sun, L., and Yan, X. A regionally robust high-spatial-resolution aerosol retrieval algorithm for MODIS images over Eastern China. *IEEE Transactions on Geoscience and Remote Sensing*, 2019, 57(7), 4748–4757.
25. **Wei, J.**, Li, Z., Sun, L., Yang, Y., Zhao, C., and Cai, Z. Enhanced aerosol estimations from Suomi-NPP VIIRS images over heterogeneous surfaces. *IEEE Transactions on Geoscience and Remote Sensing*, 2019, 57(12), 9534–9543.
26. Sun, L., **Wei, J.***, Bilal, M., Tian, X., Jia, C., Guo, Y., and Mi, X. Aerosol optical depth retrieval over bright areas using Landsat 8 OLI images. *Remote Sensing*, 2016, 8(1), 23.
27. Sun, Z., **Wei, J.**[#], Zhang, N., He, Y., Sun, Y., Liu, X., Yu, H., and Sun, L. Retrieving high-resolution aerosol optical depth from GF-4 PMS imagery in Eastern China. *Remote Sensing*, 2021, 13, 3752.
28. Tian, X., Liu, Q., Gao, Z., Wang, Y., Li, X., and **Wei, J.*** Improving MODIS aerosol estimates over land with the surface BRDF reflectances using the 3-D discrete cosine transform and RossThick-LiSparse models. *IEEE Transactions on Geoscience and Remote Sensing*, 2021, 59(12), 9851-9860.
29. Wang, M., **Wei, J.**[#], Wang, X., Luan, Q., and Xu, X. Reconstruction of all-sky daily air temperature datasets with high accuracy in China from 2003 to 2022. *Scientific Data*, 2024, 11, 1133. https://doi.org/10.1038/s41597-024-03980-z
30. Yang, D., **Wei, J.***, and Zhong, Y. Aerosol optical depth retrieval over Beijing using MODIS satellite images. *Spectroscopy and Spectral Analysis*, 2018, 38(11), 3464–3469.
31. Zhang, T., **Wei, J.***, Gan, J., Zhu, Q., and Yang, D. Precipitable water vapor retrieval with MODIS near infrared data. *Spectroscopy and Spectral Analysis*, 2016, 36(8), 2378–2383.

Product Evaluation and Fusion:

32. **Wei, J.**, Li, Z., Peng, Y., and Sun, L. MODIS Collection 6.1 aerosol optical depth products over land and ocean: validation and comparison. *Atmospheric Environment*, 2019, 201, 428–440. (ESI Hot and Highly Cited Paper, Journal Most Cited Articles since 2018) [Citations = 335]
33. **Wei, J.**, Peng, Y., Mahmood, R., Sun, L., and Guo, J. Intercomparison in spatial distributions and temporal trends derived from multi-source satellite aerosol products. *Atmospheric Chemistry and Physics*, 2019, 19, 7183–7207. (ESI Highly Cited Paper, Cited By IPCC AR6)
34. **Wei, J.***, Sun, L., Huang, B., Bilal, M., Zhang, Z., and Wang, L. Verification, improvement and application of aerosol optical depths in China. Part 1: Inter-comparison of NPP-VIIRS and Aqua-MODIS. *Atmospheric Environment*, 2018, 175, 221–233. (ESI Highly Cited Paper)
35. **Wei, J.**, Li, Z., Sun, L., Peng, Y., Zhang, Z., Li, Z., Su, T., Feng, L., Cai, Z., and Wu, H. Evaluation and uncertainty estimate of the next-generation geostationary meteorological Himawari-8/AHI aerosol products. *Science of the Total Environment*, 2019, 692, 879–891.

36. **Wei, J.***, Li, Z., Sun, L., Peng, Y., Liu, L., He, L., Qin, W., and Cribb, M. MODIS Collection 6.1 3 km resolution aerosol optical depth product: global evaluation and uncertainty analysis. *Atmospheric Environment*, 2020, 240, 117768.
37. **Wei, J.**, Li, Z., Sun, L., Peng, Y., and Wang, L. Improved merge schemes for MODIS Collection 6.1 Dark Target and Deep Blue combined aerosol products. *Atmospheric Environment*, 2019, 202, 315–327.
38. **Wei, J.**, Peng, Y., Guo, J., and Sun, L. Performance of MODIS Collection 6.1 Level 3 aerosol products in spatial-temporal variations over land. *Atmospheric Environment*, 2019, 206, 30–44.
39. **Wei, J.**, and Sun, L. Comparison and evaluation of different MODIS aerosol optical depth products over Beijing-Tianjin-Hebei region in China. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 2017, 10(3), 835–844.
40. He, L., Wang, L., Li, Z., Jiang, D., Sun, L., Liu, D., Liu, L., Yao, R., Zhou, Z., and **Wei, J.*** VIIRS Environmental Data Record and Deep Blue aerosol products: validation, comparison, and spatiotemporal variations from 2013 to 2018 in China. *Atmospheric Environment*, 2021, 250, 118265.

Remote Sensing Image Classification and Identification (5)

41. **Wei, J.**, Huang, W., Li, Z., Sun, L., Zhu, X., Yuan, Q., Liu, L., and Cribb, M. Cloud detection for Landsat imagery by combining the random forest and super-pixels extracted via energy-driven sampling segmentation approaches. *Remote Sensing of Environment*, 2020, 248, 112005.
42. **Wei, J.***, Ming, Y., Jia, Q., and Yang, D. Simple mineral mapping algorithm based on multi-type spectral diagnostic absorption features: a case study at Cuprite, Nevada. *Journal of Applied Remote Sensing*, 2017, 11(2).
43. **Wei, J.***, Ming, Y., Han, L., Ren, Z., and Guo, Y. Method of remote sensing identification for mineral types based on multiple spectral characteristic parameters matching. *Spectroscopy and Spectral Analysis*, 2015, 35(10), 2862-2866.
44. Sun, L., **Wei, J.***, Wang, J., Mi, X., Guo, Y., Lv, Y., Yang, Y., Gan, P., Zhou, X., Jia, C., and Tian, X. A universal dynamic threshold cloud detection algorithm (UDTCDA) supported by a prior surface reflectance database. *Journal of Geophysical Research Atmospheres*, 2016, 121(12), 7172–7196.
45. 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.

Impacts of Air Pollution and Extreme Weather (56)

Public Health:

46. 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. (ESI Highly Cited Paper)
47. 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. (ESI Highly Cited Paper)
48. 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.
49. 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.
50. Fang, L., Ma, Y., Peng, Y., Ni, Y., Ma, C., Wang, G., Zhao, H., Chen, Y., Zhang, T., Cai, G., **Wei, J.***, Xiang, H., and Pan, F. Long-term effect of fine particulate matter constituents on reproductive hormones homeostasis in women attending assisted reproductive technologies: A population-based longitudinal study. *Ecotoxicology and Environmental Safety*, 2024, 284, 116915.
51. Feng, Y., Zhang, W., **Wei, J.**#, Jiang, D., Tong, S., Huang, C., Xu, Z., Wang, X., Tao, J., Li, Z., Hu, J., Zhang, Y., and Cheng, J. Medium-term exposure to size-fractioned particulate matter and asthma exacerbations in China: A longitudinal study of asthmatics with poor medication adherence. *Ecotoxicology and Environmental Safety*, 2024, 274, 116234.

52. Guo, H., Li, X., Li, W., Wu, J., and **Wei, J.*** Climatic modification effects on the association between PM_1 and lung cancer incidence in China. *BMC Public Health*, 2021, 21, 880.
53. Guo, T., Chen, X., **Wei, J.**[#], Chen, S., Zhang, Y., Lin, S., Deng, X., Qu, Y., Lin, Z., Chen, S., Li, Z., Sun, J., Chen, X., Chen, Z., Sun, X., Chen, D., Ruan, X., Tuohetasen, S., Li, X., Zhang, M., Sun, Y., Zhu, S., Deng, X., Hao, Y., Jing, Q., and Zhang, W. Unveiling causal connections: Long-term particulate matter exposure and type 2 diabetes mellitus mortality in Southern China. *Ecotoxicology and Environmental Safety*, 2024, 274, 116212.
54. 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.
55. 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.
56. 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.
57. 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.
58. 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.
59. 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.
60. Liu, T., Li, X., **Wei, J.**[#], Shu, L., Jin, J., Fu, T., Yang, X., and Zhu, L. The interactive and joint associations of ambient $PM_{2.5}$ and temperature on the onset of acute coronary syndrome: Findings from the Chinese Cardiovascular Association (CCA) database-chest pain center registry. *Environmental Science & Technology*, 2024, 58(50), 21978–21988.
61. 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.
62. 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.
63. Ma, Y., Miao, C., **Wei, J.**[#], Sun, B., Li, H., Tian, Y., and Zhu, Y. Exposure to $PM_{2.5}$ and its constituents in relation to thyroid function of pregnant women: Separate and mixture analyses. *Chemosphere*, 2024, 367, 143610.
64. Song, J., Ding, Z., Zheng, H., Xu, Z., Cheng, J., Pan, R., Yi, W., **Wei, J.***, and Su, H. Short-term PM_1 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.
65. 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.
66. Tian, Y., Ma, Y., Wu, J., Wu, Y., Wu, T., Hu, Y., and **Wei, J.***. Ambient $PM_{2.5}$ chemical composition and cardiovascular disease hospitalizations in China. *Environmental Science & Technology*, 2024, 58(37), 16327–16335. (Journal Cover Article)
67. 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.
68. 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.

69. 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.
70. 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.
71. Wang, X., Xu, Z., Ho, H., Song, Y., Zheng, H., Hossain, M., Khan, M., Bogale, D., **Wei, J.***, and Cheng, J. Ambient particular matters (PM_1, $PM_{2.5}$, PM_{10}) and childhood pneumonia: the smaller particle, the greater short-term impact? *Science of the Total Environment*, 2021, 772, 145509.
72. 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.
73. 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.
74. 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.
75. 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.
76. 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 PM_1, $PM_{2.5}$, and PM_{10} on ischemic and hemorrhagic stroke incidence in Shandong Province, China. *Environmental Research*, 2022, 212, 113350.
77. Wu, H., Zhang, Y., Zhao, M., Liu, W., Magnussen, C., **Wei, J.***, and Xi, B. Short-term effects of exposure to ambient PM_1 on blood pressure in children and adolescents aged 9 to 18 years in Shandong Province, China. *Atmospheric Environment*, 2022, 283, 119180.
78. Wu, K., Fan, W., **Wei, J.**[#], Lu, J., Ma, X., Yuan, Z., Huang, Z., Zhang, Q., Huang, Y., Zou, F., and Wu, X. Effects of fine particulate matter and its chemical constituents on influenza-like illness in Guangzhou, China. *Ecotoxicology and Environmental Safety*, 2025, 290, 117540.
79. 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.
80. 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 PM_1 is larger than associations with $PM_{2.5}$ and PM_{10}. *Environmental Research*, 2022, 210, 113016.
81. 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.
82. 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, 58(1), 171–181.
83. 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.
84. Yan, M., Hou, F., Xu, J., Liu, H., Liu, H., Zhang, Y., Liu, H., Lu, C., Yu, P., **Wei, J.***, and Tang, N. The impact of prolonged exposure to air pollution on the incidence of chronic non-communicable disease based on a cohort in Tianjin. *Environmental Research*, 2022, 215, 114251.
85. Zhan, Z., Xu, X., **Wei, J.**[#], Fang, H., Zhong, X., Liu, M., Chen, Z., Ye, W., and He, F. Short-term associations of particulate matter with different aerodynamic diameters with mortality due to mental disorders and dementia in Ningde, China. *Ecotoxicology and Environmental Safety*, 2024, 271, 115931.
86. 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.

87. 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.
88. Zhang, Y., Chen, S., **Wei, J.**#, Jiang, J., Lin, X., Wang, Y., Hao, C., Wu, W., Yuan, Z., Sun, J., Wang, H., Du, Z., Zhang, W., and Hao, Y. Long-term PM1 exposure and hypertension hospitalization: A causal inference study on a large community-based cohort in South China. *Science Bulletin*, 2024, 69(9), 1313-1322.
89. Zhang, Y., Wang, Y., Zheng, H., and **Wei, J.*** Increased mortality risk from airborne exposure to polycyclic aromatic hydrocarbons. *Journal of Hazardous Materials*, 2024, 474, 134714.
90. Zhang, Y., **Wei, J.**#, Chen, S., Benmarhnia, T., Zhang, K., Wang, X., Deng, X., Gu, H., Lin, Z., Qu, Y., Xiao, J., Jiang, J., Du, Z., Zhang, W., and Hao, Y. Individual and mixed associations between fine particulate matter components and hospital admissions for hypertension: Insights from a large-scale South Chinese cohort study. *Sustainable Cities and Society*, 2025, 124, 106293.
91. 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.
92. Zhang, Y., **Wei, J.**#, Shi, Y., Quan, C., Ho, H., Song, Y., and Zhang, L. Effects of early-life exposure to submicron particulate air pollution on asthma development in Chinese preschool children. *Journal of Allergy and Clinical Immunology*, 2021, 148, 771-782.E12.
93. 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.
94. Zheng, H., Yi, W., Ding, Z., Xu, Z., Ho, H., Cheng, J., Hossain, M., Song, J., Fan, Y., Ni, J., Wang, Q., Xu, Y., **Wei, J.***, and Su, H. Evaluation of life expectancy loss associated with submicron and fine particulate matter (PM_1 and $PM_{2.5}$) air pollution in Nanjing, China. *Environmental Science and Pollution Research*, 2021, 28, 68134–68143.
95. Zhou, H., Liang, X., Zhang, X., Wu, J., Jiang, Y., Guo, B., Wang, J., Meng, Q., Ding, X., Baima, Y., Li, J., **Wei, J.***, Zhang, J., and Zhao, X. Associations of long-term exposure to fine particulate constituents with cardiovascular diseases and underlying metabolic mediations: A prospective population-based cohort in Southwest China. *Journal of the American Heart Association*, 2024, 13, e033455.
96. 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.

Environment, Economy, and Others:

97. 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.
98. 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.
99. Sun, L., **Wei, J.***, Duan, D., Guo, Y., Yang, D., Jia, C., and Mi, X. Impact of land-use and land-cover change on urban air quality in representative cities of China. *Journal of Atmospheric and Solar-Terrestrial Physics*, 2016, 142, 43–54.
100. Xue, W., Zhang, J., Ji, D., Che, Y., Lu, T., Deng, X., Li, X., Tian, Y., and **Wei, J.*** Aerosol-induced direct radiative forcing effects on terrestrial ecosystem carbon fluxes over China. *Environmental Research*, 2021, 200, 111464.
101. Xue, W., Zhang, J., Zhong, C., Li, X., and **Wei, J.*** Spatiotemporal $PM_{2.5}$ variations and its response to the industrial structure from 2000 to 2018 in the Beijing-Tianjin-Hebei region. *Journal of Cleaner Production*, 2021, 279, 123742. (ESI Highly Cited Paper)

❖ Book Chapters (2)

1. **Wei, J.**, and Sun, L. Cloud detection and Aerosol Optical Depth Retrieval from MODIS Satellite Imagery, in 3S Technology Applications in Meteorology: Observations, Methods and Modelling, *Taylor & Francis Group/CRC Press, Boca Raton*, FL, USA, ISBN: 9781032425139, 2023.

2. Ming, Y., Chen, Y., **Wei, J.**, and Zhou, H. Remote Sensing Identification Method for Mineral Types based on Cooperative Spectral Feature Parameters. *China University of Mining and Technology Press*, China, ISBN: 978756464658540(8), 2020.