Ruibin, Xu

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Education

- PhD candidate Environmental Engineering and Science (08/2021–present), Hong Kong Polytechnic University (PolyU)/Southern University of Science and Technology (SUSTech). Chief Supervisor: Prof. Tao Wang (PolyU); Co-supervisors: Profs. Shu Tao (SUSTech/Peking University), Peng Wang (Sun Yat-sen University), and Huizhong Shen (SUSTech)
- MEng Environmental Science (06/2021), Jinan University, Guangzhou, China
- BEng Environmental Engineering (06/2016), South China Agricultural University, Guangzhou, China

Service to the academic community

- Volunteer, Green Development Summit of Guangdong-Hong Kong-Macao Greater Bay Area, China (12/2018)
- Volunteer, The National Energy Structure Survey, China (11/2018)
- Internship, The Investigation of the Water Quality of the Pearl River by Department of Ecology and Environment of Guangdong Province, China (03/2015).
- Internship, Institute of Eco-environment and Soil Sciences, Guangdong Academy of Sciences, China (09/2014–03/2015)

Conferences

- AGU Fall Meeting 2023, San Francisco, CA, USA
- PAIR Conference 2023, The Hong Kong Polytechnic University, Hong Kong, China, (2023)
- Academic Conference on Environmental Health and Risk Assessment, Guangzhou, China (2019)
- The Sixth Ecotoxicology Congress, Guangzhou, China (2019)

Publishments

- Guo, P.; Shen, H.; Chen, Y.; Dai, H.; Mai, Z.; **Xu, R.**; Zhang, R.; Wang, Z.; He, J.; Zheng, L.; et al. Carbon dioxide emissions from global overseas coal-fired power plants. Nat. Clim. Change 2024, 14 (11), 1151-1157. DOI: https://doi.org/10.1038/s41558-024-02114-y.
- Zhang, J.; Shen, H.; Chen, Y.; Meng, J.; Li, J.; He, J.; Guo, P.; Dai, R.; Zhang, Y.; **Xu, R.**; et al. Iron and Steel Industry Emissions: A Global Analysis of Trends and Drivers. Environ. Sci. Technol. 2023, 57 (43), 16477-16488. DOI: https://doi.org/10.1021/acs.est.3c05474.
- **Xu, R.** Updates of a Global CO2 Emission Inventory (1960-2019) with Highly Resolved Source Information. In AGU Fall Meeting Abstracts, San Francisco, CA; 2023.

- Lin, C.; Zeng, Z.; **Xu, R.**; Liang, W.; Guo, Y.; Huo, X. Risk assessment of PBDEs and PCBs in dust from an e-waste recycling area of China. Sci. Total Environ. 2022, 803, 150016. DOI: https://doi.org/10.1016/j.scitotenv.2021.150016.
- **Xu, R.**; Zheng, X.; Lin, Y.; Lin, C.; Guo, Y.; Huo, X. Assessment of dust trace elements in an e-waste recycling area and related children's health risks. Sci. Total Environ. 2021, 791, 148154. DOI: https://doi.org/10.1016/j.scitotenv.2021.148154.

Work in progress

- **Xu, R.**; Shen, H.; Wang, P.; Wang, T.; Chen, Y.; Guo, P.; Mai, Z.; He, J.; Zheng, Z.; Zhang, R.; et al. Traditional to online shopping transition in China—increased CO_2 emission intensity yet potential for low-carbon development (unpublished manuscript). 2025. Revised submission to One Earth
- **Xu, R.**; Shen, H.; Wang, P.; Wang, T.; Chen, Y.; Guo, P.; Mai, Z.; He, J.; Zheng, Z.; Zhang, R.; et al. E-commerce growth reduces primary $PM_{2.5}$ emissions but increases secondary PM2.5 precursors. 2025. Submitted to Environmental Science & Technology.
- **Xu, R.**; Shen, H.; Zheng, L.; Wang, P.; Wang, T.; Chen, Y.; Guo, P.; Mai, Z.; He, J.; Zheng, Z.; et al. E-commerce increases air pollution health burdens but reduces city inequity (unpublished manuscript). 2025. In progress.

Language level

- English: TOEFL iBT (95/120, in 2021)
- Japanese: JLPT N2 (99/180)
- Chinese: Native

Skill

Python; Matlab; MRIOA; Machine learning; ArcGIS; Adobe Illustrator; ICP-MS; High Volume $PM_{2.5}$ Sampler; Blood glucose meter; SPSS; GraphPad Prism