

Wenjun Meng

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College of Urban and Environmental Science
Peking University

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Education

Ph. D. in *Environmental Geography*, Peking University.

2017.9-2022.7 (expected)

B. Sc. in *Environmental Science*, Peking University.

2013.9-2017.7

Academic Experience

Research Assistant, Laboratory for Earth Surface Processes, Peking University

2017.11-2020.7

Advisor: Prof. Shu Tao

Project: **Energy-environment-health Benefits of Rural Residential Coal-substitution in Northern China**

Research Assistant, Laboratory for Earth Surface Processes, Peking University

2016.9-2017.6

Advisor: Prof. Shu Tao

Project: **Stove Improvement and Effects on Environment and Health in Rural China** (Undergraduate Thesis)

Visiting Scholar, School of Civil and Environmental Engineering, Georgia Institute of Technology

2016.8-2017.1

Advisor: Prof. Armistead G. Russell

Project: **Air Quality Modeling in China Using CMAQ**

Research Assistant, Laboratory for Earth Surface Processes, Peking University

2015.1-2017.1

Advisor: Prof. Shu Tao

Project: **High-resolution Global Ammonia Emission Inventory**

Teaching Assistant, College of Urban and Environmental Science, Peking University

2019.9-2020.1

Course: **Methodology in Environmental Science**

Instructor: Prof. Shu Tao

Teaching Assistant, College of Urban and Environmental Science, Peking University

2018.9-2019.1

Course: **Applied Statistics**

Instructor: Prof. Shu Tao

Oral Presentation, The 5th International Conference on Environmental Pollution and Health (ICEPH)

Harbin, China. 2019.8

Poster Presentation, European Geosciences Union (EGU) General Assembly 2020

Vienna, Austria (Online). 2020.5

Oral Presentation, The 8th Air Benefit and Cost and Attainment Assessment Conference (ABaCAS)

Guangzhou, China. 2020.11

Skills

Programming: Python, C, HTML.

Tools: MATLAB, WRF-Chem, ArcGIS, SPSS, Linux.

Languages: English (professional), Mandarin Chinese (native), German (beginner)

Awards and Honors

National Scholarship, Peking University, 2019.

Merit Student, Peking University, 2019.

Best Oral Award (3rd Rank), The 5th International Conference on Environmental Pollution and Health (ICEPH), 2019

Principal Scholarship, Peking University, 2019.

Tiehan Scholarship, CUES, Peking University, 2018.

Excellent Research Award, Peking University, 2018.

Principal Scholarship, Peking University, 2017.

Publications

Meng, W.; Shen, H.; Yun, X.; Chen, Y.; Zhong, Q.; Zhang, W.; Yu, X.; Xu, H.; Ren, Y. a.; Shen, G.; Ma, J.; Liu, J.; Cheng, H.; Wang, X.; Zhu, D.; Tao, S., 2020. Differentiated-Rate Clean Heating Strategy with Superior Environmental and Health Benefits in Northern China. *Environmental Science & Technology*, 54 (21), 13458-13466.

Meng, W.; Zhong, Q.; Chen, Y.; Shen, H.; Yun, X.; Smith, K. R.; Li, B.; Liu, J.; Wang, X.; Ma, J.; Cheng, H.; Zeng, E. Y.; Guan, D.; Russell, A. G.; Tao, S., 2019. Energy and air pollution benefits of household fuel policies in northern China. *Proceedings of the National Academy of Sciences*, 116 (34), 16773-16780.

Meng, W., Zhong, Q., Yun, X., Zhu, X., Huang, T., Shen, H., Chen, Y., Chen, H., Zhou, F., Liu, J. and Wang, X., Tao, S., 2017. Improvement of a global high-resolution ammonia emission inventory for combustion and industrial sources with new data from the residential and transportation sectors. *Environmental Science & Technology*, 51(5), pp.2821-2829.

Yun, X.; Shen, G.; Shen, H.; **Meng, W.**; Chen, Y.; Xu, H.; Ren, Y.; Zhong, Q.; Du, W.; Ma, J.; Cheng, H.; Wang, X.; Liu, J.; Wang, X.; Li, B.; Hu, J.; Wan, Y.; Tao, S., 2020. Residential solid fuel emissions contribute significantly to air pollution and associated health impacts in China. *Science Advances*, 6 (44), eaba7621.

Lu, C.; Xu, H.; **Meng, W.**; Hou, W.; Zhang, W.; Shen, G.; Cheng, H.; Wang, X.; Wang, X.; Tao, S., 2020. A novel model for regional indoor PM_{2.5} quantification with both external and internal contributions included. *Environment International*, 145, 106124.

Ciais, P.; Wang, Y.; Andrew, R.; BrÃ'l'on, F. M.; Chevallier, F.; Broquet, G.; Nabuurs, G. J.; Peters, G.; McGrath, M.; **Meng, W.**; Zheng, B.; Tao, S., 2020. Biofuel burning and human respiration bias on satellite estimates of fossil fuel CO₂ emissions. *Environmental Research Letters*, 15 (7), 074036.

Shen, G.; Ru, M.; Du, W.; Zhu, X.; Zhong, Q.; Chen, Y.; Shen, H.; Yun, X.; **Meng, W.**; Liu, J.; Cheng, H.; Hu, J.; Guan, D.; Tao, S., 2019. Impacts of air pollutants from rural Chinese households under the rapid residential energy transition. *Nature Communications*, 10 (1), 3405.

Zhu, X., Yun, X., **Meng, W.**, Xu, H., Du, W., Shen, G., Cheng, H., Ma, J. and Tao, S., 2018. Stacked use and transition trends of rural household energy in mainland China. *Environmental Science & Technology*.

Zhong, Q., Ma, J., Shen, G., Shen, H., Zhu, X., Yun, X., **Meng, W.**, Cheng, H., Liu, J., Li, B. and Wang, X., 2018. Distinguishing Emission-Associated Ambient Air PM_{2.5} Concentrations and Meteorological Factor-Induced Fluctuations. *Environmental Science & Technology*, 52(18), pp.10416-10425.

Tao, S., Ru, M.Y., Du, W., Zhu, X., Zhong, Q.R., Li, B.G., Shen, G.F., Pan, X.L., **Meng, W.J.**, Chen, Y.L. and Shen, H.Z., 2018. Quantifying the rural residential energy transition in China from 1992 to 2012 through a representative national survey. *Nature Energy*, p.1.

Zhang, Y., Kang, S., Sprenger, M., Cong, Z., Gao, T., Li, C., Tao, S., Li, X., Zhong, X., Xu, M. and **Meng, W.**, Neupane, B., Qin, X., Sillanpää, M., 2018. Black carbon and mineral dust in snow cover on the Tibetan Plateau. *Cryosphere*, 12(2), pp.413-431.

Huang, T., Zhu, X., Zhong, Q., Yun, X., **Meng, W.**, Li, B., Ma, J., Zeng, E.Y. and Tao, S., 2017. Spatial and temporal trends in global emissions of nitrogen oxides from 1960 to 2014. *Environmental Science & Technology*, 51(14), pp.7992-8000.