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EDUCATION

Wuhan University	Ph.D. (Remote Sensing)	2019-present	Wuhan, China
Wuhan University	B.E. (Computer Science)	2015-2019	Wuhan, China

PUBLICATIONS

- [1] **Z. Pei**, G. Han, X. Ma, H. Su, and W. Gong. Response of major air pollutants to covid-19 lockdowns in china. *Science of the Total Environment*, 743:140879, 2020.
- [2] T. Shi, G. Han, X. Ma, W. Gong, W. Chen, J. Liu, X. Zhang, **Z. Pei**, et al. Quantifying co2 uptakes over oceans using lidar: a tentative experiment in bohai bay. *Geophysical Research Letters*, 48(9):e2020GL091160, 2021.
- [3] M. Cai, G. Han, X. Ma, **Z. Pei**, and W. Gong. Active-passive collaborative approach for xco 2 retrieval using spaceborne sensors. *Optics Letters*, 47(16):4211–4214, 2022.
- [4] **Z. Pei**, G. Han, X. Ma, T. Shi, and W. Gong. A method for estimating the background column concentration of co 2 using the lagrangian approach. *IEEE Transactions on Geoscience and Remote Sensing*, 60:1–12, 2022.
- [5] T. Shi, G. Han, X. Ma, H. Mao, C. Chen, Z. Han, **Z. Pei**, H. Zhang, et al. Quantifying factory-scale co2/ch4 emission based on mobile measurements and emission-partition model: cases in china. *Environmental Research Letters*, 18(3):034028, 2023.
- [6] T. Shi, G. Han, X. Ma, **Z. Pei**, W. Chen, J. Liu, X. Zhang, S. Li, et al. Quantifying strong point sources emissions of co2 using spaceborne lidar: method development and potential analysis. *Energy Conversion and Management*, 292:117346, 2023.
- [7] **Z. Pei**, G. Han, H. Mao, C. Chen, T. Shi, K. Yang, X. Ma, and W. Gong. Improving quantification of methane point source emissions from imaging spectroscopy. *Remote Sensing of Environment*, 295:113652, 2023.
- [8] **Z. Pei**, G. Han, T. Shi, X. Ma, and W. Gong. A xco2 retrieval algorithm coupled spatial correlation for the aerosol and carbon detection lidar. *Atmospheric Environment*:119933, 2023.
- [9] G. Han, **Z. Pei***, T. Shi, H. Mao, S. Li, F. Mao, X. Ma, X. Zhang, et al. Unveiling unprecedented methane hotspots in china’s leading coal production hub: a satellite mapping revelation. *Geophysical Research Letters*, 51(10):e2024GL109065, 2024.

PRESENTATIONS

- [1] **Z. Pei** et al., Assessment of Anthropogenic CO2 Emissions Using OCO-2 Observations: A case study in Anshan. China’s 1st Carbon Neutral and Green Development Conference, Shenzhen, China, May 2021, Oral.
- [2] **Z. Pei** et al., Retrieval of greenhouse gas concentrations using ground-based FTS spectra at Wuhan, China. Optical Sensors and Sensing Congress, Virtual, Jul. 2021, Oral.
- [3] **Z. Pei** et al., Detection of methane point sources with hyperspectral satellites in China. Sino-American Youth Dialogue, Beijing, China, Oct. 2021, Oral.
- [4] **Z. Pei** et al., Towards Better Estimating Facility-level Methane Emissions with Spaceborne Imaging Spectrometers. AGU Fall Meeting 2023, San Francisco, U.S., Dec.. 2023, Poster.

TECHNICAL SKILLS

- **Programming languages:** Proficient with MATLAB, Python, R, Google Earth Engine.
- **Modeling experience:** WRF-LES, WRF-STILT and LBLRTM.

SCHOLARSHIPS/HONORS

- National Scholarship for Graduate Student (2021)
- Excellent graduate of Wuhan University(2019)
- Scholarship of Wuhan University (2017, 2018, 2020, 2021)
- Outstanding Student Leader of Wuhan University (2017, 2018)
- Excellent student of Wuhan University(2017)

LANGUAGE

- Native-level proficiency in Chinese, Good at reading and writing in English.

PERSONAL INTERESTS

- Badminton, swimming, hiking and photography.