

Hao Yin (殷昊)

Ph.D. candidate

University of Science and Technology of China

Anhui Institute of Optics and Fine Mechanics, HFIPS, Chinese Academy of Sciences, Hefei 230031, China;

Email: yhyh95@mail.ustc.edu.cn;

EDUCATION

2018/09-present	Ph.D. candidate in Computer Science and Technology
University of Science and Technology of China	Hefei Institutes of Physical Science, Chinese Academy of Sciences (Advisor: Professor Wenqing Liu; Associate Professor Youwen Sun; Associate Professor Xiao Lu)
2013/09-2017/06	B.E., in Electronic Information Engineering
Hefei University of Technology	School of computer and information engineering (Advisor: Professor Changhua Lu)

RESEARCH INTERESTS

- Remote sensing retrieval algorithm for atmospheric trace gases
- Source, chemistry, transport, and sink of greenhouse gas and air pollutants
- Application of machine learning and data mining in atmospheric environment

PROFESSIONAL SKILLS

Retrieval algorithm: Optimal estimation algorithm

Chemistry transport model: GEOS-Chem

Programming Languages: C/C++, Java, Python, Matlab, R, Fortran

Machine Learning model: XGBoost, Lightgbm, Catboost, Generative Adversarial Networks (GAN), LSTM

Other: Assembly Language, Microcontroller, Digital Signal Process

HONORS AND AWARDS

- | | |
|-------------|---|
| 2020 | <ul style="list-style-type: none">• National Scholarship 研究生国家奖学金• First class scholarship for PhD 博士一等奖学金• Outstanding Student Leaders of University of Science and Technology of China |
| 2019 | <ul style="list-style-type: none">• National Scholarship 研究生国家奖学金• First class scholarship for master degree 硕士一等奖学金• Outstanding Volunteers of University of Science and Technology of China Summer Camp |
| 2018 | <ul style="list-style-type: none">• Second class scholarship for master degree 硕士二等奖学金 |

PUBLICATIONS

1. **Yin, H.**, Sun, Y., Liu, C., Lu, X., Smale, D., Blumenstock, T., Nagahama, T., Wang, W., Tian, Y., Hu, Q., Shan, C., Zhang, H., and Liu, J.: Ground-based FTIR observation of hydrogen chloride (HCl) over Hefei, China, and comparisons with GEOS-Chem model data and other ground-based FTIR stations data, *Optics Express*, 28, 8041, 2020

-
2. **Yin, H.**, Sun, Y., Liu, C., Zhang, L., Lu, X., Wang, W., Shan, C., Hu, Q., Tian, Y., Zhang, C., Su, W., Zhang, H., Palm, M., Notholt, J., and Liu, J.: FTIR time series of stratospheric NO₂ over Hefei, China, and comparisons with OMI and GEOS-Chem model data, *Optics Express*, 27, A1225, 2019.
 3. **Yin, H.**; Sun, Y.; Song, Z.; Liu, C.; Wang, W.; Shan, C.; Zha, L. Remote Sensing of Atmospheric Hydrogen Fluoride (HF) over Hefei, China with Ground-Based High-Resolution Fourier Transform Infrared (FTIR) Spectrometry. *Remote Sensing*, 2021, 13, 791.
 4. Sun, Y., **Yin, H.**,* Liu, C., Mahieu, E., Notholt, J., Té, Y., Lu, X., Palm, M., Wang, W., Shan, C., Hu, Q., Qin, M., Tian, Y., and Zheng, B.: Reduction in C₂H₆ from 2015 to 2020 over Hefei, eastern China points to air quality improvement in China, *Atmospheric Chemistry and Physics*, in review, 2021.
 5. Sun, Y., **Yin, H.**, Cheng, Y., Zhang, Q., Zheng, B., Notholt, J., Lu, X., Liu, C., Tian, Y., and Liu, J.: Quantifying variability, source, and transport of CO over the Himalayas and Tibetan Plateau, *Atmospheric Chemistry and Physics*, accepted, 2020.
 6. Sun, Y., **Yin, H.**, Liu, C., Zhang, L., Cheng, Y., Palm, M., Notholt, J., Lu, X., Vigouroux, C., Zheng, B., Wang, W., Jones, N., Shan, C., Tian, Y., Hu, Q., and Liu, J.: Mapping the drivers of formaldehyde (HCHO) variability from 2015–2019 over eastern China: insights from FTIR observation and GEOS-Chem model simulation, *Atmospheric Chemistry and Physics*, 21, 6365-6387, 2021.

INVITED TALK

- | | |
|---------|--|
| 2020/12 | Wuhan University Remote Sensing Doctoral Forum
Ground-based high-resolution Fourier transform infrared remote sensing inversion and applications |
| 2020/12 | Outstanding Students Forum of CAS Hefei Institutes of Physical Science
Infrared remote sensing inversion and applications |
| 2020/11 | CAS Plasma Institute Youth Forum
Advances in Environmental Optics |

ACTIVITIES AND SERVICES

- **Journal Reviewer**
Advances of Atmospheric Sciences, Ecological Informatics, Journal of the Optical Society of America A
- **Social Services**
Leaders of master and PhD class
Chairman of Graduate Student Association, Key Laboratory of Environmental Optics, Chinese Academy of Sciences
Vice Chairman of Graduate Student Association, Anhui Institute of Optics and Mechanics, Chinese Academy of Sciences
Summer Camp Director, University of Science and Technology of China