Ying CHEN

Senior Research Associate
Lancaster Environment Centre
Room B505, Lancaster University, Lancaster, LA1 4YQ UK
Chinese citizen, y.chen65@lancaster.ac.uk, Tel: +44 (0)7421273510

APPOINTMENT

2017.07-Present **LANCASTER ENVIRONMENT CENTRE, LACASTER UNIVERSITY** Lancaster, UK
Senior Research Associate, **Advisor**: Prof. Dr. Oliver Wild

2012.02-2013.07 **CHINA ELECTRIC POWER RESEARCH INSTITUTE (CEPRI)** Nanjing, China
Scientific Researcher

2009.07-2012.02 **STATE GRID ELECTRIC POWER RESEARCH INSTITUTE (SGEPRI)** Nanjing, China
Scientific Researcher

EDUCATION

2013.08-2017.07 **LEIBNIZ INSTITUTE FOR TROPOSPHERIC RESEARCH (TROPOS)** Leipzig, Germany
MAX-PLANCK-INSTITUTE FOR CHEMISTRY (MPIC, Joint-Training) Mainz, Germany
Ph.D. degree in Atmospheric Science. **Advisor:** Prof. Dr. Alfred Wiedensohler

- **Dissertation title:** *(Magna Cum Laude)*

"Evaluation and Improvement of Particle Number/Mass Size Distribution Modelling in WRF-Chem over Europe"

2006.09-2009.07 **SCHOOL OF PHYSICS, PEKING UNIVERSITY** Beijing, China
Master degree in Atmospheric Science. **Advisor:** Prof. Dr. Chunsheng Zhao

2002.09-2006.07 **NANJING UNIVERSITY OF IFORMATION SCIENCE & TECHNOLOGY** Nanjing, China
BSc degree in Atmospheric Science.

AWARDED HONOR

2006-2018

- 2nd Prize for Natural Science Award, Ministry of Education, China (2018, 8th Awardee)
- Outstanding Reviewer of "Environmental Pollution" (2018)
- Outstanding Reviewer of "Atmospheric Environment" (2017)
- Best Poster Award of EAC 2016, Tours France, European Aerosol Conference (2016)
- 2nd Prize for Science and Technology Achievement of Jiangsu Province (2012, 6th Awardee)
- Excellent Software Award for "Solar Power Forecasting System", CEPRI (2012)
- 3rd Prize for Scientific and Technological Achievement, SGEPRI (2011)
- 2nd class of the Excellent Publication Award, SGEPRI (2010, 2011)
- Outstanding employee, SGEPRI (2010, 2011)
- Excellent Master Student of Peking University, Peking University (2009)
- 2nd Prize of Zhong ShengBiao Academic Forum, Peking University (2009)
- Excellent Student in Academy, Moral and Health, NUIST (2006)

SELECTED PROJECT EXPERIENCE

Participated projects

2017.07-Present **LANCASTER ENVIRONMENT CENTRE, LACASTER UNIVERSITY** Lancaster, UK

- **Process analysis, observations and modelling - Integrated solutions for cleaner air for Delhi (PROMOTE),** funded by NERC UK and MoES India (NE/P016405/1): air pollution source identification, pollutants transport and chemical processes investigation, emission inventory evaluation Gaussian process emulation for sensitivity studies and develop better mitigation strategies for reducing PM2.5 and ozone in Delhi.
- **Megacity Delhi atmospheric emission quantification, assessment and impacts (DelhiFlux),** funded by NERC UK and MoES India (NE/P01531X/1): emission quantification, sensitivity modelling study for secondary pollutants, improve model performance and emission inventory.

2013.08-2017.07 **LEIBNIZ INSTITUTE FOR TROPOSPHERIC RESEARCH (TROPOS)** Leipzig, Germany

- **Distribution and Characters of Ultra Fine Particles over Germany**, funded by German Federal Ministry of Education and Research (F&E 371143232): analyze black carbon data and emission reductions, validate black carbon simulations and emission inventory, and assess the climate effect.
- **High definition clouds and precipitation for advancing climate prediction,** funded by German Federal Ministry of Education and Research (01LK1212C): analyze the measurement datasets, perform WRF-Chem simulation and validate the model results, develop parameterization of heterogeneous nitrate formation, reverse/processes analysis of observations and evaluate the climate effect using regional CTMs.
- **Influence of air quality (particularly Black Carbon) on climate change and climate adjustment,** funded Saxony State Germany: perform sensitivity runs with WRF-Chem, analyze the measurement datasets, evaluate the emission inventory, and assess the climate effect.

TEACHING EXPERIENCES

2019.09-2019.09, co-convenor (1/3 module) of undergraduate course 'Environmental Data Visualization and Analysis' Weihai campus, Lancaster Environment Centre, Lancaster University

2016.10-2016.11, delivery part (about 1/5) of and organize practice sessions of graduate course 'Analyze Environmental Dataset using MATLAB', main campus, College of Environmental Sciences and Engineering, Peking University.

2019.09-present, co-supervise PhD candidate Ms. Yagni Rami with Prof. Dr. Alfred Wiedensohler (TROPOS)

CONFERENCES ORGANIZATION AND INVITED TALKS

2019.03, invited talk, title 'Air Pollution in Delhi, India', Chemistry Department of Chemistry, Uni. of Cambridge, UK

2019.09, invited talk, title 'Air Pollution and its climate effect in Delhi, India', Institute of Atmospheric Physics, China

2019.12, invited talk, title 'Impacts of Aerosol Hygros.: Chemistry, Observation & Climate', Uni. of Manchester, UK

2019.06, co-organized the WRF-Chem Workshop of UK, Lancaster University, UK

GRANTS

2013-2017, Ph.D. student scholarship (TROPOS, Germany, 57.5K Euro)

2015-2016, travel grants for European Aerosol Conference (GAeF, Germany, 1000 Euro)

SKILLS

Weather Research and Forecasting and chemistry (WRF-Chem) model;

Linux on HPC and perform extreme-scale simulation; Gaussian-process Emulation

Basic programming with Matlab, Fortran, shell and Python; Big data analytics and visualization;

SELECTED PUBLICATIONS *(one reference paper in a related area is highlighted)*

Journal Articles Accepted and Published

- **Chen Y.*,** Cheng, Y., Ma, N., Wei, C., Ran, L., Wolke, R., Größ, J., Wang, Q., Pozzer, A., Denier van der Gon, H. A. C., Spindler, G., Lelieveld, J., Tegen, I., et al.: Natural sea-salt emissions moderate the climate forcing of anthropogenic nitrate, Atmos. Chem. Phys., 2019, 10.5194/acp-2019-556, 2020a.
- Wang, Y., and **Chen, Y.***: Significant Climate Impact of Highly Hygroscopic Atmospheric Aerosols in Delhi, India, Geophysical Research Letters, doi: 10.1029/2019GL082339, 2019a.
- **Chen Y.*,** Wild, O., Ryan, E., Sahu, S. K., Lowe, D., Archer-Nicholls, S., Wang, Y., McFiggans, G., Ansari, T., Singh, V., et al.,: Mitigation of PM2.5 and Ozone Pollution in Delhi: A Sensitivity Study during the Pre-monsoon period, Atmos. Chem. Phys., 10.5194/acp-20-499-2020, 2020b.

Oral presentations

- **Chen, Y.,** Wild O., Ryan E., et al., "A numerical approach for picking win-win strategies for air pollution in megacities", Goldschmidt Conference 2019, Oral, August 2019, Barcelona, Spain.
- **Chen, Y**., Wolke R., et al., "Evaluation of Particulate matter (PM) simulation ability in Central Europe by a regional chemistry-transport model: COSMO-MUSCAT", European Aerosol Conference (EAC-2015), Oral, September, 2015, Milano, Italy.