# LI, YITING

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## EDUCATION

### Ph.D. in Atmospheric Science (Dec 2022)
University of California-Davis, GPA 3.65/4.0

- Major Advisor: Michael J. Kleeman

### M.S. in Atmospheric Science (Jun 2018)
University of California-Davis, GPA 3.65/4.0

### B.S. in Atmospheric Science (Jun 2013)
Nanjing Univ of Information Science & Technology, GPA 3.74/4.0

## WORK EXPERIENCE

### AIR POLLUTION SPECIALIST
1001 I street, Sacramento, CA

CALIFORNIA AIR RESOURCES BOARD
11/2023 - Present

- Conducting air quality modeling (CMAQ) and air dispersion modeling (CALPUFF) for the California Air Toxics Assessment (CATA)
- Preparing air quality modeling inputs and perform QA/QC for processed inputs
- Post-processing, summarizing, plotting and tabulating modeling results
- Collecting various observation data including air quality, meteorology and satellite data
- Preparing technical reports and publications
- Assisting development and maintenance of the Visualization Mapping Tool and Data Portal for CATA

### POSTDOCTORAL RESEARCHER
Davis, CA

INSTITUTE OF TRANSPORTATION STUDIES (ITS) at UC DAVIS
01/2023 - 11/2023

1. Alternative Jet Fuel in California - Modeling LCFS Policy Scenarios and Air Quality Impact Considerations in the 2030 timeframe

Leading project funded by Climateworks Foundation

- Developed 2030 emissions under two energy scenarios based on CARB inventories
- Trying to understand the air quality impact trade-offs when sustainable aviation fuel (SAF) consumption is rapidly expanded over next decades

### RESEARCH ASSISTANT
Davis, CA

UNIVERSITY OF CALIFORNIA, DAVIS
01/2015 - 12/2022

1. Source Contributions to Formaldehyde (HCHO) Concentrations in Southeast Texas
06/2021 - 09/2023

Leading project funded by Earth Justice, a nonprofit organization

- Conducted source-oriented chemical transport model simulations during 2010 over southeast Texas (16 HCHO sources tracked)
- Analyzed the major sources of HCHO - refinery and industrial-related
- Further analyzed secondary HCHO contribution in Houston area
- Investigated HCHO environmental justice issue over Houston and Beaumont

2. Impacts of Oregon State Clean Fuels Program (CFP) on Public Health in 2035
09/2020 - 09/2022

Leading project funded by Oregon Department of Environmental Quality, Project #162-20

- Developed 2035 emissions under three energy scenarios by SMOKE & NEI 2017
- Conducted air quality simulations for PM2.5 and NOx exposure fields
- Evaluated health co-benefits for BAU and two CFP energy scenarios by BenMAP
- Investigated the environmental justice issue over Portland and Salem

3. Optimal Energy Portfolio to Sustain Economic Advantage, Achieve GHG Targets, and Minimize PM2.5
09/2018 - 03/2021

Leading project funded by US EPA, Grant No. R83587901

- Conducted WRF-Chem simulations with spatial resolution ranging from 250m to 36km, decided the most appropriate resolution for environmental justice study
- Evaluated health co-benefits for 6 energy scenarios by using BenMAP
- Conducted environmental justice analysis for 6 energy scenarios
- Helped governors/stakeholders better understand future air quality improvement

4. Improving Spatial Surrogates for Emissions Inventories in California
07/2016 - 07/2019

Leading project funded by California Air Resource Board (CARB), contract 15AQP009

- Updated 7 & created 3 spatial surrogates for CARB emissions inventories by using ArcGIS, Python, and public database (census-based data, construction permit, etc.)
- Improved spatial accuracy of emissions from off-road construction equipment, industrial-related, agricultural-related, and residential-related
- Improved chemical transport model simulation accuracy by 6%

## SKILLS

Python, ArcGIS (proficient in arcpy), FORTRAN, Linux System

SMOKE, WRF-Chem, BenMAP, WRF, CALPUFF, CMAQ

NEI, CARB inventory

## PUBLICATIONS

1. Improving spatial surrogates for area source emissions inventories in California
Atmospheric Environment 2021

*LI, YITING; Rodier, C.; Lea, J. D.; Harvey, J.; Kleeman, M. J.*
https://doi.org/10.1016/j.atmosenv.2020.117665

2. Optimized environmental justice calculations for air pollution disparities in Southern California
Heliyon 2022

*LI, YITING; Kumar, A.; Hamilton, S.; Lea, J.D.; Harvey, J.; Kleeman, M. J.*
https://doi.org/10.1016/j.heliyon.2022.e10732

3. Adoption of Low-Carbon Fuels Reduces Race/Ethnicity Disparities in Air Pollution Exposure in California
Science of the Total Environment 2022

*LI, YITING; Kumar, A.;Li, Yin; Kleeman, M. J.*
https://doi.org/10.1016/j.scitotenv.2022.155230

4. Modeling expected air quality impacts of Oregon's proposed expanded clean fuels program
Atmospheric Environment 2023

*LI, YITING; Wang, G; Murphy, C; and Kleeman, M.J.*
https://doi.org/10.1016/j.atmosenv.2023.119582

5. Formaldehyde exposure racial disparities in southeast Texas
Environmental Science & Technology, 2024

*LI, YITING; Zhao, Y.; and Kleeman, M.J.*
https://doi.org/10.1021/acs.est.3c02282

6. Separately resolving NOx and VOC contributions to ozone formation
Atmospheric Environment 2022

*Zhao, Y.; LI, YITING; et.al*
https://doi.org/10.1016/j.atmosenv.2022.119224

7. Future emissions of particles and gases that cause regional air pollution in California under different greenhouse gas mitigation strategies
Atmospheric Environment 2022

*Li, Yin; Yang, C.; LI, YITING; et. al*
https://doi.org/10.1016/j.atmosenv.2022.118960

8. Reducing southern California ozone concentrations in the year 2050 under a low carbon energy scenario
Atmospheric Environment 2024

*Yusheng Zhao, Yin Li, Yiting Li, Anikender Kumar, Qi Ying, Michael J. Kleeman*
https://doi.org/10.1016/j.atmosenv.2023.120315

9. Long-term Air Quality and Health Effects of Dairy Digesters in Future California
Atmospheric Environment 2024, under review

*Jia Jiang, YITING LI, Michael J. Kleeman*