Dien Wu

University of Utah, Department of Atmospheric Sciences, Salt Lake City, UT 84112, USA

E-mail: dien.wu@utah.edu Webpage: http://dienwu.me Phone: (850) 570-7132

Education

University of Utah	Ph.D. (Atmospheric Sciences)	**Expected Spring 2020**	Salt Lake City, USA
University of Utah	M.S. (Atmospheric Sciences)	2014 – 2016	Salt Lake City, USA
Florida State University (joint with NUIST)	B.S. (Meteorology)	2012 – 2014	Tallahassee, USA
Nanjing University of Information Science and Technology (NUIST)		2010 – 2012	Nanjing, China

Employment

Graduate Research Assistant, Dept. of Atmospheric Sciences, University of Utah, 2014 – present

Professional Experience

NASA Orbiting Carbon Observatory (OCO-2) Science Team Member, 2016 – present

Peer-Reviewed Publications

Submitted/In review

7. **Wu, D.,** J.C. Lin, T. Oda, and E.A. Kort: Space-based CO_2 measurements of per capita urban emissions. *Environmental Research Letters (in review)*.

6. Yang, E.G., E.A. Kort, **D. Wu,** J.C. Lin, T. Oda, X. Ye, and T. Lauvaux: Using space-borne observations and Lagrangian modeling to evaluate urban carbon dioxide emissions in the Middle East, Submitted to *Journal of Geophysical Research-Atmospheres.*

Published

5. Hernandez, A.J., Morales-Rincon, L.A., **Wu, D**., Mallia, D., Lin, J.C. and Jimenez, R.: Transboundary transport of biomass burning aerosols and photochemical pollution in the Orinoco River Basin. *Atmospheric Environment*, https://doi.org/10.1016/j.atmosenv.2019.01.051, 2019.

4. **Wu, D.,** Lin, J. C., Fasoli, B., Oda, T., Ye, X., Lauvaux, T., Yang, E. G., and Kort, E. A.: A Lagrangian approach towards extracting signals of urban CO_2 emissions from satellite observations of atmospheric column CO_2 (XCO_2): X-Stochastic Time-Inverted Lagrangian Transport model ("X-STILT v1"), *Geosci. Model Dev*., 11, 4843-4871, https://doi.org/10.5194/gmd-11-4843-2018, 2018.

3. Ye, X., Lauvaux, T., Kort, E. A., Oda, T., Feng, S., Lin, J. C., Yang, E., and **Wu, D**.: Constraining fossil fuel CO_2 emissions from urban area using OCO-2 observations of total column CO_2, *Atmos. Chem. Phys. Discuss*., https://doi.org/10.5194/acp-2017-1022, 2017.

2. Mallia, D.V., A. Kochanski, **D. Wu**, C. Pennell, W. Oswald, and J.C. Lin: Wind-Blown Dust Modeling Using a Backward-Lagrangian Particle Dispersion Model. *J. Appl. Meteor. Climatol.*, 56, 2845–2867, https://doi.org/10.1175/JAMC-D-16-0351.1, 2017.

1. Lin, J. C., Mallia, D. V., **Wu, D**., and Stephens, B. B.: How can mountaintop CO_2 observations be used to constrain regional carbon fluxes?, *Atmos. Chem. Phys*., 17, 5561-5581, https://doi.org/10.5194/acp-17-5561-2017, 2017.

Oral and Poster Presentations

Wu, D., J.C. Lin, H. Duarte, G. Wei, K. Wu, S. Richardson, N. Miles, K. Davis, E. A. Kort: Towards improving the modeling of urban biosphere using Solar-induced Fluorescence (SIF), *AGU Chapman Conference on understanding carbon climate feedbacks*, San Diego, CA, 26-29 Aug, 2019 (poster).

Wu, D., J. C. Lin, T. Oda, and E. A. Kort: Do denser cities emit less CO_2? A first estimate using a CO_2 satellite, *OCO-2/OCO-3 Science Team telecon*, 14 May 2019 (oral).

Wu, D., J. C. Lin, Oda, T., Ye, X., Lauvaux, T., Yang, E., and Kort, E. A., Towards Interpreting the Signal of CO_2 Emissions from Megacities by Applying a Lagrangian Receptor-oriented Model to OCO-2 XCO_2 data, *AGU Fall Meeting*, New Orleans, LA, 11-15 Dec, 2017 (oral).

Wu, D., J. C. Lin, Oda, T., Ye, X., Lauvaux, T., Yang, E., and Kort, E. A., Towards interpreting the signal of CO_2 emissions from Megacities by applying a Lagrangian receptor-oriented model (STILT) to OCO-2 XCO_2 data, *OCO-2 Science Team Meeting*, Pasadena, CA, 20-24, March, 2017 (both).

Mallia, D. V., A. Kochanski, **D. Wu**, S. Urbanski, and J. C. Lin, Integrating wildfire plume rises within atmospheric transport models, *AGU Fall meeting*, San Francisco, CA, 12-16 Dec, 2016.

Wu, D., D. V. Mallia, S. P. Urbanski, J. C. Lin, Top-down Constraints on CO Emissions from Wildfire Inventories Using a Receptor-oriented Lagrangian Particle Dispersion Model, *AMS Third Conference on Biogeoscience*, Salt Lake City, UT, 20-25 June, 2016 (oral).

Lin, J. C., B. B. Stephens, D. V. Mallia, **D. Wu**, H. Duarte, S. Urbanski, and J. Ehleringer, How can we constrain regional carbon fluxes in the American Rockies from atmospheric measurements?, *5th NCAP and AmeriFlux Joint Meeting*, Washington, D.C, 26-29 Jan, 2015.

Lin, J. C., D. V. Mallia, **D. Wu**, S. Urbanski, and B. B. Stephens, Quantifying the influence of biomass burning on measurements site in the western U.S., *AGU Fall Meeting*, San Francisco, CA, 15-19 Dec, 2014.

Peer Review Activities

Reviewer for *MDPI-Atmosphere*, *MDPI-Sensors*, and *Remote Sensing Letters*

Technical Skills

Programming languages: R, Fortran, LaTeX; Python (beginner)
Modeling experience: WRF-ARW, STILT

Professional Association

American Geophysical Union

Scholarships and Honors

- Pass the Graduate Qualifying Exam with distinction, University of Utah, 05/2015
- Gradate with Magna cum laude, Florida State University, 05/2014
- Dean's List, Florida State University, Fall 2012, Spring 2013, Fall 2013, Spring 2014
- Prize for being one of the excellent class leaders, NUIST, 06/2012
- Second tier scholarship (top 10%), NUIST, 2010, 2011