

DR. OLIVIA E. CLIFTON

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Education

Ph.D. Columbia University, Earth & Environmental Sciences, 2018.

B.S. University of Wisconsin-Madison, Mathematics, 2012.

Professional Experience

Advanced Study Program Postdoctoral Fellow National Center for Atmospheric Research, 2018-

National Science Foundation Graduate Research Fellow Columbia University, 2015-2018.

Graduate Researcher Columbia University, 2013-2014.

Research Assistant Columbia University, 2013.

Undergraduate Researcher University of Wisconsin-Madison, 2011-2012.

Intern NASA Student Airborne Research Program, 2012.

Honors & Awards

15th Atmospheric Chemistry Colloquium for Emerging Senior Scientists (ACCESS XV), 2019.

Earth Educators' Rendezvous travel grant recipient, 2019.

NCAR ASP Postdoctoral Fellowship, 2018.

MIT Civil & Environmental Engineering Rising Star, 2017.

AMS First Place Oral Presentation, Third Conference on Atmospheric Biogeosciences, 2016.

NSF Graduate Research Fellowship, 2015 (Honorable Mention, 2014).

University of Wisconsin-Madison Holstrom Environmental Scholarship, 2012.

Peer-Reviewed Publications

1. **Clifton, O. E.**, F. Paulot, A. M. Fiore, L. W. Horowitz, G. Correa, S. Fares, I. Godec, A. H. Goldstein, C. Gruening, A. J. Hogg, B. Loubet, I. Mammarella, J. W. Munger, L. Neil, P. Stella, J. Uddling, T. Vesala, & E. Weng (2020). Influence of dynamic ozone dry deposition on ozone pollution. *Journal of Geophysical Research: Atmospheres*. <https://doi.org/10.1029/2020JD032398>
2. Baublitz, C. B., A. M. Fiore, **O. E. Clifton**, J. Mao, J. Li, G. Correa, D. Westervelt, L. W. Horowitz, F. Paulot, R. Commane, & A. P. Williams (2020). Sensitivity of tropospheric ozone over the Southeast USA to dry deposition. *Geophysical Research Letters*. <https://doi.org/10.1029/2020GL087158>
3. **Clifton, O. E.**, A. M. Fiore, W. J. Massman, C. B. Baublitz, M. Coyle, L. Emberson, S. Fares, D. K. Farmer, P. Gentine, G. Gerosa, A. Guenther, D. Helmig, D. L. Lombardozzi, J. W. Munger, E. G. Patton, S. E. Pusede, D. B. Schwede, S. J. Silva, M. Sörgel, A. L. Steiner, & A. P. K. Tai (2020). Dry deposition of ozone over land: processes, measurement and modeling. *Reviews of Geophysics*. <https://doi.org/10.1029/2019RG000670> *Featured as an AGU EOS Editor's Vox*
4. **Clifton, O. E.**, A. M. Fiore, J. W. Munger, & R. Wehr (2019). Spatiotemporal controls on observed daytime ozone deposition velocity over Northeastern U.S. forests during summer. *Journal of Geophysical Research: Atmospheres*. <https://doi.org/10.1029/2018JD029073>
5. Fiore, A. M., E. V. Fischer, S. Pandey Deolal, O. Wild, D. Jaffe, J. Staehelin, **O. E. Clifton**, et al. (2018). Peroxy acetyl nitrate (PAN) measurements at northern mid-latitude mountain sites in April: A constraint on continental source-receptor relationships. *Atmospheric Chemistry and Physics*. <https://doi.org/10.5194/acp-18-15345-2018>
6. Rieder, H., A. M. Fiore, **O. E. Clifton**, G. Correa, L. W. Horowitz, & V. Naik (2018). Combining model projections with site-level observations to estimate changes in distributions and seasonality of ozone in surface air over the USA. *Atmospheric Environment*. <https://doi.org/10.1016/j.atmosenv.2018.07.042>
7. **Clifton, O. E.**, A. M. Fiore, J. W. Munger, S. Malyshev, L. W. Horowitz, E. Shevliakova, F. Paulot, L. T. Murray, & K. L. Griffin (2017). Interannual variability in ozone removal by a temperate deciduous forest. *Geophysical Research Letters*. <https://doi.org/10.1002/2016GL070923>

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8. **Clifton, O. E.**, A. M. Fiore, G. Correa, L. W. Horowitz, & V. Naik (2014). Twenty-first century reversal of the surface ozone seasonal cycle over the northeastern United States. *Geophysical Research Letters*. <https://doi.org/10.1002/2014GL061378> *Featured as an AGU EOS Spotlight*
9. Fiore, A. M., J. T. Oberman, M. Y. Lin, L. Zhang, **O. E. Clifton**, D. J. Jacob, V. Naik, L. W. Horowitz, J. P. Pinto, & G. P. Milly (2014). Estimating North American background ozone in U.S. surface air with two independent global models: Variability, uncertainties, and recommendations. *Atmospheric Environment*. <https://doi.org/10.1016/j.atmosenv.2014.07.045>

Professional Activities

Member 2020 International Global Atmospheric Chemistry (IGAC) Early Career Short Course Organizing Committee (Invited), 2019-

Member Air Quality Model Evaluation International Initiative (AQMEII) Steering Group 4, 2018-

Member NCAR ASP Thompson Lecture Series Committee, 2019-

Primary Convener Biosphere-Atmosphere Interactions and Atmospheric Chemistry, AGU 2019.

Member NCAR ASP Professional Development Committee, 2018-2019.

Co-organizer Workshop on Ozone Dry Deposition (Funding from NASA, NOAA, Lamont Climate Center), 2017.

Organizer Women In Science at Columbia Writing Workshop for NSF Graduate Res. Fellowship, 2017.

Member Lamont Colloquium Committee, 2014-2016.

Contributing Author IPCC Working Group 1 Chapter 11, 2013.

Reviewer *ACS Earth and Space Chemistry, Agricultural and Forest Meteorology, Agronomy, Atmospheric Chemistry and Physics, Atmospheric Measurement Techniques, Biogeosciences, Environmental Science and Pollution Research, Environmental Pollution, Geoscientific Model Development, Geophysical Research Letters, Journal of Advances in Modeling Earth Systems, Journal of Geophysical Research-Atmospheres, NOAA Atmospheric Chemistry, Carbon Cycle, and Climate Program*

Member American Geophysical Union (since 2012), Earth Science Women's Network (since 2012), Women In Science at Columbia (2013-2018)

Outreach & Mentoring Activities

Panelist NCAR Professional Development Series for Interns on proposal writing, 2020.

Volunteer NCAR Explorer Series, Boulder, CO 2019.

Lunchtime Mentor Lamont Secondary School Field Research Program, Palisades, NY 2014, 2016, 2018.

Research Mentor Eleanor Pressman (Columbia College '19), Palisades, NY 2017.

Presenter Lamont Open House, Palisades, NY 2014, 2016, 2017.

Presenter Career Day, Public School 180, New York, NY 2017.

Presenter Columbia University EESC UN2100 Field Trip to Lamont, Palisades, NY 2015, 2016.

Presenter Earth2Class, Palisades, NY 2016.

Panelist Inspiring Voices: STEAM Working Professionals Panel, Connelly School of the Holy Child, Potomac, MD 2015.

Presenter Pascack Hills High School Girls' Climate Stewards Club, Palisades, NY 2014.

Exhibitor Princeton Plasma Physics Laboratory Young Women's Conference, Princeton, NJ 2014.

Experimental Leader Women In Science at Columbia Girls' Science Day, New York, NY 2013.

Presenter Expand Your Horizons, Madison, WI 2012.

Teaching Experience

Guest Lecturer Atmospheric Aerosols, Columbia University, 2018.

Guest Lecturer Introduction to Atmospheric Chemistry, Columbia University, 2017.

Teaching Assistant Earth's Environmental System: Climate, Columbia University, 2016.

Teaching Assistant Quantitative Models of Climate-Sensitive Natural and Human Systems, Columbia University, 2014.

Teaching Assistant Introduction to Atmospheric Chemistry, Columbia University, 2014.

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Invited Talks

1. Integrated Land Ecosystem-Atmosphere Processes Study (iLEAPS) Early Career Scientists Conference: Air Quality-Ecosystem Interactions, Boulder, CO, Oct. 17, 2019
2. Colorado State University, Atmospheric Chemistry Group Meeting, Fort Collins, CO, October 4, 2019
3. NCAR Climate and Global Change Division Seminar, Boulder, CO, Sept. 17, 2019
4. Fourth Conference on Meteorology and Climate-Modeling for Air Quality (MAC-MAQ), Davis, CA, Sept. 12 2019
5. Stony Brook University, School of Marine and Atmospheric Sciences, Topics in Atmospheric and Oceanic Sciences seminar, Stony Brook, NY, August 28, 2019
6. NASA Jet Propulsion Laboratory Climate Center Workshop on Air Quality - Ecosystem Interactions, Pasadena, CA, Jan. 29, 2019
7. NCAR Joint Atmospheric Chemistry Observations and Modeling and Mesoscale Microscale Meteorology Seminar, Boulder, CO, Jan. 14, 2019
8. Long-term Biosphere-Atmosphere Chemical Flux Workshop, Irvine, CA, Nov. 2017
9. Global Decadal Hydroclimate Predictability, Variability & Change Meeting, Palisades, NY, May 2014

First-Author Presentations (P for poster)

10. [Forthcoming] 24th Symposium on Boundary Layers and Turbulence, Sibenik, Croatia, July 2021
11. [Forthcoming] 5th Conference on Atmospheric Biogeosciences, Minneapolis, MN, June 2021
12. American Geophysical Union Fall Meeting, Washington, DC, Dec. 10, 2019 (P)
13. Gordon Research Conference on Atmospheric Chemistry, Newry, ME, August 1, 2019 (P)
14. 15th Atmospheric Chemistry Colloquium for Emerging Senior Scientists, Brookhaven National Laboratory, NY, July 26, 2019
15. NCAR MUSICA Kick-Off Meeting, Boulder, CO, May 21, 2019
16. NCAR/NEON Workshop on Predicting life in the Earth system: linking the geosciences and ecology, Boulder, CO, April 10, 2019
17. NCAR Chemistry-Climate Working Group Meeting, Boulder, CO, Feb. 21, 2019
18. NCAR Land Model and Biogeochemistry Working Group Meeting, Boulder, CO, Feb. 13, 2019
19. American Geophysical Union Fall Meeting, Washington, DC, Dec. 14, 2018 (P)
20. American Geophysical Union Fall Meeting, New Orleans, LA, Dec. 2017
21. MIT Civil & Environmental Engineering The Rising Stars Workshop, Cambridge, MA, Oct. 2017
22. Lamont Climate Center Workshop on Ozone Dry Deposition, Palisades, NY, Oct. 2017
23. 5th Integrated Land Ecosystem-Atmosphere Processes Study Science Conference, Oxford, UK, 2017
24. New York City Metro Area Energy and Air Quality Data Gaps Workshop, Palisades, NY, 2017 (P)
25. Annual Harvard Forest Ecology Symposium, Petersham, MA, 2017 (P)
26. International Global Atmospheric Chemistry Science Conference, Breckenridge, CO, 2016 (P)
27. International Summer School on Atmospheric and Oceanic Sciences: Advanced Programming Techniques for the Earth System Science, L'Aquila, Italy, 2016 (P)
28. 3rd Conference on Atmospheric Biogeosciences, Salt Lake City, UT, 2016
29. European Geophysical Union 2016 Conference, Vienna, Austria, 2016
30. NASA Air Quality Applied Sciences Team 7 Meeting, Cambridge, MA, 2014 (P)
31. 3rd Chemistry-Climate Modeling Initiative Workshop, Lancaster, UK, 2014 (P)
Recipient of International Global Atmospheric Chemistry (IGAC) travel grant
32. American Geophysical Union Fall Meeting, San Francisco, CA, 2013 (P)
33. New York State Energy Research and Development Authority Environmental Monitoring, Evaluation and Protection in New York: Linking Science and Policy Conference, Albany, NY, 2013 (P)
34. American Geophysical Union Fall Meeting, San Francisco, CA, 2012 (P)
35. NASA Student Airborne Research Program, Irvine, CA, 2012
36. NASA Air Quality Applied Sciences Team 3 Meeting, Madison, WI, 2012 (P)