

Mary Angelique G. Demetillo

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EDUCATION:

- In progress Ph.D., Environmental Sciences, Atmospheric Chemistry, University of Virginia, Charlottesville, VA, Advisor: Sally E. Pusede
- 2017 B.S. Double major: Physics and Chemistry, Seton Hall University, NJ, *Magna Cum Laude*

HONORS/AWARDS:

- 2021 Double Hoo Research Award, University of Virginia
- 2020 – Present Future Investigators in NASA Earth and Space Science and Technology Grant
- 2020 – Present Jefferson Scholars Foundation Paul T. Jones II Fellow
- 2018 – 2020 Data Science Presidential Fellow, University of Virginia
- 2019 – 2021 Virginia Space Grant Consortium Graduate Research Fellow
- 2019 Critical Participatory Actions Research Workshop Travel Grant, Office for Equal Opportunity and Civil Rights Research, University of Virginia
- 2018 AGU's Outstanding Student Presentation Award Recipient
- 2017 Princeton Plasma Physics Laboratory Inventor Hall of Fame Inductee

PUBLICATIONS:

Demetillo, M. A. G., Harkins, C., McDonald, B. C., Chodrow, P. S., Sun, K., and Pusede, S. E.: [Space-based observational constraints on NO₂ air pollution inequality from diesel traffic in major U.S. cities](#), *Geophys. Res. Lett.*, 48, doi:10.1029/2021GL094333, **2021**. *Read the AGU article*.

Demetillo, M. A. G., Navarro, A., Knowles, K. K., Fields, K. P., Geddes, J. A., Nowlan, C. R., Sun, K., Judd, L. M., Al-Saadi, J., Diskin, G. S., McDonald, B. C., and Pusede, S. E.: [Observing nitrogen dioxide air pollution inequality using high-resolution remote sensing measurements in Houston, Texas](#), *Environ. Sci. Technol.*, 54, 16, 9882–9895, doi:10.1021/acs.est.0c01864, **2020**. *Read the C&EN article*.

Demetillo, M. A. G., Anderson, J. F., Geddes, J. A., Najacht, E., Herrera, S. A., Kabasares, K., Kotsakis, A., Yang, X., Lerdau, M. T., and Pusede, S. E.: [Observing severe drought influences on ozone air pollution in California](#), *Environ. Sci. Technol.*, doi:10.1021/acs.est.8b04852, **2019**. *Read the Science Magazine News article*.

CONFERENCE PRESENTATIONS:

- 2021 Space-Based Observational Constraints on NO₂ Air Pollution Inequality From Diesel Traffic in Major US Cities, American Geophysical Union Annual Meeting, A13A-08, December 2021, talk
- 2020 Observing controls over the temporal variability in census-tract-level nitrogen dioxide air pollution inequality in major U.S. cities with TROPOMI, American Geophysical Union Annual Meeting, A111-0016, virtual, December 2020, poster.

- 2020 Observing nitrogen dioxide air pollution inequality using high spatial resolution remote sensing, Atmospheric Chemical Mechanisms, virtual, November 2020, talk
- 2019 *Invited talk*, Observing air pollution inequality using high-resolution nitrogen dioxide remote sensing in Houston, Texas, American Geophysical Union, Dec. 9 – 13, eLightning talk and poster
- 2019 Evaluating air pollution inequality using high-resolution nitrogen dioxide observations, American Geophysical Union, Dec. 9 – 13, talk
- 2019 Observing air pollution inequality using high-resolution nitrogen dioxide remote sensing Houston, Texas, TEMPO Health and Air Quality Conference, University of Alabama-Huntsville, October 2019, poster
- 2018 Assessing air pollutant exposure inequities through integration of novel high-resolution nitrogen dioxide data sets, American Geophysical Union, Dec. 10 – 14, poster

TEACHING:

- 2017 – Present *Undergraduate Mentor*, Atmospheric Chemistry Research Lab, Department of Environmental Sciences, University of Virginia
- 2017– 2018 *Teaching Assistant (instructor of record)*, Atmosphere and Weather Laboratory, Department of Environmental Sciences, University of Virginia

UNIVERSITY/DEPARTMENT SERVICE:

- 2020 Co-Founder, Environmental Justice Interest Group, Department of Environmental Sciences, University of Virginia
- 2020 Secretary, Graduate Student Association, Department of Environmental Sciences, University of Virginia
- 2019 Panelist, LSAMP Virtual Panel: An exchange with scholars from the Department of Environmental Sciences at the University of Virginia
- 2019 Founding member, Intersections of Urban Inequality, University of Virginia
- 2019 EnviroDay Research Symposium Co-chair, Department of Environmental Sciences, University of Virginia
- 2018 Recruitment Weekend Co-chair, Department of Environmental Sciences

MEDIA COVERAGE

- 2020 Data Science News, “Urbanization and Climate Justice in Dakar Senegal.” August 21, 2020. https://www.youtube.com/watch?v=urk5CZGVcPc&feature=youtu.be&mc_cid=f50f8b5a75&mc_eid=88aac1a568&ab_channel=UVASchoolofDataScience. Video.
- 2020 C&EN, “Satellites can now see air pollution inequality within cities.” August 5, 2020. <https://cen.acs.org/environment/pollution/Satellites-see-air-pollution-inequality/98/web/2020/08>. Article.
- 2019 Science Magazine News, “Drought is not just about water. It affects air pollution, too.” April 11, 2019. <https://www.sciencemag.org/news/2019/04/drought-not-just-aboutwater-it-affects-air-pollution-too>. Article.

PROFESSIONAL MEMBERSHIPS/AFFILIATIONS

American Physical Society Member (2016 – 2018); American Geophysical Union Member (2018–); American Meteorological Society (2021 –)