

Mary Angelique G. Demetillo

NASA Langley Research Center
Science Directorate, Chemistry & Dynamics Branch
Hampton, VA 23666

mary.a.demetillo@nasa.gov
Maryangelique.com

EDUCATION:

- May 2023 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*

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*.

SELECTED HONORS/AWARDS:

- 2022 AMS Outstanding Student Presentation Award Recipient
2020 – 2023 Future Investigators in NASA Earth and Space Science and Technology Grant
2020 – 2022 Jefferson Scholars Foundation Fellow and 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

SELECTED CONFERENCE PRESENTATIONS:

- 2023 Using Space-based Observations to Assess Drivers of Current Day Intra-Urban Air Pollution Inequalities, American Association for the Advancement of Sciences Annual Meeting, Mar. 2 – 5, *invited panelist*

SELECTED CONFERENCE PRESENTATIONS CONTINUED:

- 2022 TEMPO Science Team Meeting, May 31 – June 2, *virtual poster*
- 2022 Space-Based Observational Constraints on NO₂ Air Pollution Inequality From Diesel Traffic in Major US Cities, 102nd American Meteorological Society Annual Meeting, 13A.1, Jan. 23 – 27, *virtual talk*
- 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 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
- 2018 Assessing air pollutant exposure inequities through integration of novel high-resolution nitrogen dioxide data sets, American Geophysical Union, Dec. 10 – 14, poster

RELEVANT ACTIVITIES AND EXPERIENCES:

- Jun 2022 Review Panelist, NASA Earth Sciences Division
- 2021 – 2022 Co-Organizer, Commune: A Student-Led Virtual Interdisciplinary Gathering on Environmental Justice, University of Virginia
- 2020 – 2022 Co-president with focus on BIPOC engagement, Graduate Student Association, Dept. Environmental Sciences, University of Virginia,

SELECTED MEDIA COVERAGE

- 2021 C&EN, “Satellite data reveal that diesel trucking drives US air pollution inequality.” September 1, 2021, <https://cen.acs.org/environment/pollution/Satellite-data-reveal-diesel-trucking/99/i32>. Article
- 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 Association for the Advancement of Sciences (2023 –); American Physical Society Member (2016 – 2018); American Geophysical Union Member (2018–); American Meteorological Society (2021 –)