

# L ? BG? I, AMJMK@G

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## CBSA?RGML

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Projected graduation May 2024

N f B candidate s l b c p \_ b t g g m p B \_ l g c j H \_ a m `

Thesis: Understanding drivers of air pollution in Asia

University of California, Los Angeles, Bachelor Science, *Magna Cum Laude*

June 2019

Major: Environmental Science

Minor: Atmospheric and Oceanic Science

## RESEARCH EXPERIENCE

Graduate Research Assistant, *Harvard University*

September 2019-present

Advisor: Daniel Jacob

Year-Round Student Intern, NASA Jet Propulsion Laboratory

March 2019-August 2019

Advisor: Kevin Bowman

Undergraduate Researcher, *Natural Resources Defense Council*

October 2018-June 2019

Advisor: Karen McKinnon, UCLA Institute of Environment and Sustainability

Hollings Scholar, *NOAA Earth Systems Research Lab*

June 2018-August 2018

Advisor: Jessie Creamean

Year-Round Student Intern, NASA Jet Propulsion Laboratory

October 2017-June 2018

Advisors: Riley Duren, Andrew Thorpe

Summer Leadership Alliance Fellow, *Brown University*

June 2017-August 2017

Advisors: Meredith Hastings, Wendell Walters

Undergraduate Researcher, *UCLA Department of Geography*

September 2016-June 2019

Advisors: Dennis Lettenmaier, Miriam Marlier, Ruth Engel

## HONORS AND AWARDS

NSF Graduate Research Fellowship (GRFP)

2019-2024

NOAA Hollings Scholarship

2017-2019

American Meteorological Society Outstanding Student Presentation

2018

## PEER-REVIEWED PUBLICATIONS

h-index: 5, citations: 341

- **Nadia K Colombi**, Daniel J Jacob, Viral Shah, Shixian Zhai, Robert M Yantosca, Melissa Sulprizo, Laura Hyesung Yang, Ke Li, Hong Liao. Understanding drivers of high and increasing background ozone over East Asia. In prep.
- Shixian Zhai, Daniel J Jacob, Drew C Pendergrass, **Nadia K Colombi**, Viral Shah, Laura Hyesung Yang, Qiang Zhang, Shuxiao Wang, Hwajin Kim, Yele Sun, Jin-Soo Choi, Jin-Soo Park, Gan Luo, Fangqun Yu, Jung-Hun Woo, Younha Kim, Jack E Dibb, Taehyoung Lee, Jin-Seok Han, Bruce E Anderson, Ke Li, Hong Liao (2023). Coarse particulate matter air quality in East Asia: implications for fine particulate nitrate. *Atmospheric Chemistry and Physics*, 23, 4271-4281. <https://doi.org/10.5194/acp-23-4271-2023>.
- **Nadia K Colombi**, Daniel J Jacob, Laura Hyesung Yang, Shixian Zhai, Viral Shah, Stuart K Grange, Robert M Yantosca, Soontae Kim, Hong Liao (2023). Why is ozone in South Korea and the Seoul metropolitan area so high and increasing? *Atmospheric Chemistry and Physics*, 23, 4031-4044. <http://doi.org/10.5194/acp-23-4031-2023>.
- Laura Hyesung Yang, Daniel J. Jacob, **Nadia K. Colombi**, Shixian Zhai, Kelvin H. Bates, Viral Shah, Ellie Beaudry, Robert M. Yantosca, Haipeng Lin, Jared F. Brewer, Heesung Chong, Katherine R. Travis, James H. Crawford, Lok N. Lamsal, Ja-Ho Koo, and Jhoon Kim (2023). Tropospheric NO<sub>2</sub> vertical profiles over South Korea and their relation to oxidant chemistry: implications for geostationary satellite retrievals and the observation of NO<sub>2</sub> diurnal variation from space. *Atmospheric Chemistry and Physics*, 23, 2465-2481. <https://doi.org/10.5194/acp-23-2465-2023>.
- **Nadia Colombi**, Kazuyuki Miyazaki, Kevin W. Bowman, Jessica L. Neu, Daniel J. Jacob (2021). A new methodology for inferring surface ozone from multispectral satellite measurements. *Environmental Research Letters*, 16, 105005. [10.1088/1748-9326/ac243d](https://doi.org/10.1088/1748-9326/ac243d).

- Wendell W Walters, Linlin Song, Jiajue Chai, Yunting Fang, Nadia Colombi, Meredith G Hastings (2020). Characterizing the spatiotemporal nitrogen stable isotopic composition of ammonia in vehicle plumes. *Atmospheric Chemistry and Physics*, 20, 11551-11567. <https://doi.org/10.5194/acp-20-11551-2020>.
- Riley M Duren, Andrew K Thorpe, Kelsey T Foster, Talha Rafiq, Francesca M Hopkins, Vineet Yadav, Brian D Bue, David R Thompson, Stephen Conley, **Nadia K Colombi**, Christian Frankenberg, Ian B McCubbin, Michael L Eastwood, Matthias Falk, Jorn D Herner, Bart E Croes, Robert O Green, Charles E Miller (2019). California's methane super-emitters. *Nature*, 575, 180-184. <https://doi.org/10.1038/s41586-019-1720-3>.
- JM Creamean, Jessica N Cross, R Pickart, L McRaven, P Lin, A Pacini, R Hanlon, DG Schmale, J Ceniceros, T Aydel, **Colombi**, E Bolger, PJ DeMott (2019). Ice nucleating particles carried from below a phytoplankton bloom to the Arctic atmosphere, *Geophysical Research Letters*, 46, 8572-858. <https://doi.org/10.1029/2019GL083039>.

## CONFERENCE PRESENTATIONS

- 104th Annual AMS meeting, Baltimore MD, January 2024 (upcoming)
- 14th GEMS Workshop, Jeju Island, South Korea, September 2023 (talk)
- Second Regional GEOS-Chem Europe User's Meeting at University College, London August 2023 (talk)
- AGU Fall Meeting, Chicago, IL, December 2022 (poster)
- 13th GEMS Workshop, Seoul, South Korea, November 2022 (poster)
- 10th International GEOS-Chem User's Conference, Washington University, St. Louis, June 2022 (talk)
- AGU Fall Meeting, San Francisco, CA, December 2023, (poster)
- 98th Annual AMS Meeting, Phoenix, AZ, 2018 (talk)
- AGU Fall Meeting, Washington, D.C., 2018 (poster)
- Hollings Education Symposium, NOAA Headquarters in Silver Spring, MD, July 2018 (talk)
- AGU Fall Meeting, New Orleans, LA, December 2017 (talk)
- Leadership Alliance National Symposium, Hartford, CT, July 2017 (talk)

## INVITED TALKS AND SEMINARS

- Tropospheric Composition Group Meeting at NASA JPL, virtual, September 2021 (talk)

## PROFESSIONAL SERVICE AND AFFILIATIONS

- **Peer reviewer** for *Nature Communications*
- **Moderator and judge** at the Leadership Alliance National Symposium, Hartford, CT (July 2023)
- **Judge**, Harvard National Collegiate Research Conference, Cambridge, MA (Fall 2019)
- **Member** of American Geophysical Union (2017-Present) and American Meteorological Society (2018-Present)

## MENTORING

Tina Chen, Harvard University, Summer 2021.

- Harvard College Research Program: "Impacts of ozone pollution on crop yields in South Korea"

Eleftheria Lambropoulos, September 2020-May 2021

- Harvard College Research Program: "Understanding drivers of ozone pollution in East Asia via chemical transport modeling"

Eric Reyes-Munoz and Eleftheria Lambropoulos, Summer 2020

- Harvard EPS Short-Term Summer Student Program: "Exploring Global Air Quality with GEOS-Chem"

## TEACHING EXPERIENCE

*Teaching Fellow* at Harvard University for EPSCI-133: Introduction to Atmospheric Chemistry

Spring 2020, Spring 2021, Spring 2022

- Taught weekly sections and office hours, including material preparation.
- Created and graded homework assignments.
- Received the Bok Center Certificate of Distinction in Teaching for Spring 2020, Spring 2021, and Spring 2022

## LEADERSHIP AND OUTREACH

### Activities

**Co-leader** of the Graduate Student and Post-Doc Seminar for Harvard EPS (2023-Present)

**Lead organizer**, Harvard EPS Day (May 2023)

**Co-leader** of the Diversity, Inclusion, and Belonging Subgroup, Harvard Atmospheric Chemistry Modeling Group (2022-Present)

**Co-organizer** of the Graduate Student Forum, Harvard Atmospheric Chemistry Modeling Group (2022-Present)

**Co-organizer** of the Atmospheric and Environmental Chemistry and Society Seminar at Harvard (2021-Present)

**Outreach Chair**, Harvard EPS (Fall 2019-Fall 2021)

**Volunteer**, Science Club for Girls (Spring 2020, Fall 2021, Spring 2021, Fall 2022)

**Volunteer**, Citizen Schools (Spring 2020, Spring 2021)

**Participant**, Science-A-Thon (Fall 2019)

**National Science Foundation Outreach Program** (2017)

**Mentor**, Environmental Student Network (2017)

### *Articles*

**Colombi, N.** "United Nations Report Highlights Opportunities to Improve Global Air Quality." Science in the News, Harvard University. September 21, 2022.