

CURRICULUM VITAE

August 2024

I. PERSONAL

Paul Ginoux, Ph.D.

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Current Appointment: Senior Physical Scientist
National Oceanic and Atmospheric Administration
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II. HIGHER EDUCATION

Free University of Brussels, Belgium, Ph.D. Applied Sciences, 1997.
Free University of Brussels, Belgium, M.S., Civil Engineering, 1988.
Free University of Brussels, Belgium, B.S., Civil Engineering, 1986.

III. EXPERIENCE

Academic

2004-present, Research Physical Scientist, NOAA GFDL, Princeton, NJ
2003-2004, Project Scientist I, UCAR/NOAA GFDL, Princeton, NJ
2001-2003, Assistant Research Scientist, GEST/NASA GSFC, MD
1998-2001, Post doctoral Fellow at NASA GSFC, MD
1992-1997, Scientist visitor, National Center for Atmospheric Research, CO
1991-1992, Civil Engineer, Belgium Institute for Space Aeronomy, Belgium

Military

1989-1990, Royal Military Academy, Department of electromechanical engineering, Belgium

IV PUBLICATIONS

Journal Articles (peer reviewed): Publons (08/2024): h-index=58, citations=22,111

Google Scholar (08/2024): h-index=69, citations=31,834

1. Mahowald, N., Ginoux, et al. (2024). Letter to the Editor regarding Chappell et al., 2023, "Satellites reveal Earth's seasonally shifting dust emission sources". *The Science of the total environment*, 949, p.174792.
2. Kim, D., Chin, M., Schuster, G., Yu, H., Takemura, T., Tuccella, P., Ginoux, et al. (2024). Where dust comes from: Global assessment of dust source attributions with AeroCom models. *Journal of Geophysical Research: Atmospheres*, 129(16), p.e2024JD041377.
3. Thompson, D.R., Green, R.O., and Ginoux, P. et al. (2024). On-orbit calibration and performance of the EMIT imaging spectrometer. *Remote Sensing of Environment*, 303, p.113986.
4. González-Romero, Adolfo, Cristina González-Flórez, ..., Ginoux, P. (2024). Characterization of the particle size distribution, mineralogy, and Fe mode of occurrence of dust-emitting sediments from the Mojave Desert, California, USA. *Atmospheric Chemistry and Physics* 24, no. 16 (2024): 9155-9176.
5. Song, Q., Ginoux, P., Gonçalves Ageitos, M., Miller, R.L., Obiso, V. and Pérez García-Pando, C., (2024). Modeling impacts of dust mineralogy on fast climate response. *Atmospheric Chemistry and Physics*, 24(12), pp.7421-7446.
6. Shevliakova, E., S. Malyshev, I. Martinez-Cano, P. C. D. Milly, S. W. Pacala, P. Ginoux, K. A. Dunne et al. (2024). The land component LM4. 1 of the GFDL Earth System Model ESM4. 1: Model description and characteristics of land surface climate and carbon cycling in the historical simulation. *Journal of Advances in Modeling Earth Systems* 16(5), p.e2023MS003922.
7. Lin, M., Horowitz, L.W., Zhao, M., Harris, L., Ginoux, P., Dunne, J., Malyshev, S., Shevliakova, E., Ahsan, H., Garner, S. and Paulot, F. (2024). The GFDL Variable-Resolution Global Chemistry-Climate Model for Research at the Nexus of US Climate and Air Quality Extremes. *Journal of Advances in Modeling Earth Systems*, 16(4), p.e2023MS003984.
8. Green, R.O., Mahowald, N., Thompson, D.R., Ung, C., Brodrick, P., Pollock, R., Bennett, M., Lundeen, S., Joyce, M., Olson-Duvall, W. and Oaida, B., and Ginoux, P. *et al.* (2023). Performance and Early Results from the Earth Surface Mineral Dust Source Investigation (EMIT) Imaging Spectroscopy Mission, *2023 IEEE Aerospace Conference*, Big Sky, MT, USA, pp. 1-10, doi: 10.1109/AERO55745.2023.10115851.
9. Gao, C. Y., Naik, V., Horowitz, L. W., Ginoux, P., Paulot, F., Dunne, J., et al. (2023). Volcanic drivers of stratospheric sulfur in GFDL ESM4. *Journal of Advances in Modeling Earth Systems*, 15, e2022MS003532. <https://doi.org/10.1029/2022MS003532>
10. Gomez, J., Allen, R.J., Turnock, S.T. *et al.* The projected future degradation in air quality is caused by more abundant natural aerosols in a warmer world. *Commun Earth Environ* 4, 22 (2023). <https://doi.org/10.1038/s43247-023-00688-7>
11. Yu, Y., Ginoux, P. (2022) Enhanced dust emission following large wildfires due to vegetation disturbance. *Nat. Geosci.* <https://doi.org/10.1038/s41561-022-01046-6>
12. Réveillet, M., Dumont, M., Gascoin, S., and P. Ginoux (2022) Black carbon and dust alter the response of mountain snow cover under climate change. *Nat Commun* 13, 5279. <https://doi.org/10.1038/s41467-022-32501-y>
13. Zhong, Q., Schutgens, N., van der Werf, G.R., and Ginoux, P. *et al.* (2022) Using modelled relationships and satellite observations to attribute modelled aerosol biases over biomass burning regions. *Nat Commun* 13, 5914. <https://doi.org/10.1038/s41467-022-33680-4>
14. Di Tomaso, E., Escribano, J., Basart, S., Ginoux, P., *et al.* (2022) The MONARCH high-resolution reanalysis of desert dust aerosol over Northern Africa, the Middle East and Europe (2007–2016), *Earth Syst. Sci. Data*, 14, 2785–2816, <https://doi.org/10.5194/essd-14-2785-2022>, 2022.
15. Go, S., Lyapustin, A., Schuster, G. L., Choi, M., Ginoux, P., *et al.*, (2022) Inferring iron-oxide species content in atmospheric mineral dust from DSCOVR EPIC observations, *Atmos. Chem. Phys.*, 22, 1395–1423, <https://doi.org/10.5194/acp-22-1395-2022>.

16. Lim, H.-G., Dunne, J. P., Stock, C. A., Ginoux, P., John, J. G., & Krasting, J. (2022). Oceanic and atmospheric drivers of post-El-Niño chlorophyll rebound in the equatorial Pacific. *Geophysical Research Letters*, 49, e2021GL096113. <https://doi.org/10.1029/2021GL096113>
17. Pu, B., Jin, Q., Ginoux, P., and Yu, Y., (2022) Compound heat wave, drought, and dust events in California. *Journal of Climate*, 1-42. <https://doi.org/10.1175/JCLI-D-21-0889.1>, 2022.
18. Zhong, Q., *et al.* (2022), Satellite-based evaluation of AeroCom model bias in biomass burning regions, *Atmos. Chem. Phys.*, 22, 11009–11032, <https://doi.org/10.5194/acp-22-11009-2022>.
19. Sand, M., *et al.* (2021) Aerosol absorption in global models from AeroCom phase III, *Atmos. Chem. Phys.*, 21, 15929–15947, <https://doi.org/10.5194/acp-21-15929-2021>.
20. Gliß, J., *et al.* (2021) AeroCom phase III multi-model evaluation of the aerosol life cycle and optical properties using ground- and space-based remote sensing as well as surface in situ observations, *Atmos. Chem. Phys.*, 21, 87–128, <https://doi.org/10.5194/acp-21-87-2021>.
21. Li, L., *et al.* (2021), Quantifying the range of the dust direct radiative effect due to source mineralogy uncertainty, *Atmos. Chem. Phys.*, 21, 3973–4005, <https://doi.org/10.5194/acp-21-3973-2021>.
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23. Meng, J., *et al.* (2021) Grid-independent high-resolution dust emissions (v1.0) for chemical transport models: application to GEOS-Chem (12.5.0), *Geosci. Model Dev.*, 14, 4249–4260, <https://doi.org/10.5194/gmd-14-4249-2021>.
24. Ming, Yi, *et al.* (2021) Assessing the influence of COVID-19 on the shortwave radiative fluxes over the East Asian marginal seas. *Geophysical Research Letters*, 48, e2020GL091699, <https://doi.org/10.1029/2020GL091699>.
25. Song, Q., *et al.* (2021), Global dust optical depth climatology derived from CALIOP and MODIS aerosol retrievals on decadal timescales: regional and interannual variability, *Atmos. Chem. Phys.*, 21, 13369–13395, <https://doi.org/10.5194/acp-21-13369-2021>.
26. Su, W. *et al.* (2021), Understanding top-of-atmosphere flux bias in the AeroCom phase III models: A clear-sky perspective. *J. Advances in Modeling Earth Systems*, 13, e2021MS002584. <https://doi.org/10.1029/2021MS002584>.
27. Tau, G., *et al.* (2021), Shutting down dust emission during the middle Holocene drought in the Sonoran Desert, Arizona, USA, *Geology*, 49, DOI:10.1130/G48550.1.
28. Yu, Y., Dunne, J. P., Shevliakova, E., Ginoux, P., Malyshev, S., John, J. G., and Krasting, J. P. (2021) Increased risk of the 2019 Alaskan July fires due to anthropogenic activity. *Bulletin of the American Meteorological Society*, 102(1), S1– S7. <https://doi.org/10.1175/BAMS-D-20-0154.1>.
29. Yu, Y. and Ginoux, P. (2021) Assessing the contribution of the ENSO and MJO to Australian dust activity based on satellite- and ground-based observations, *Atmos. Chem. Phys.*, 21, 8511–8530, <https://doi.org/10.5194/acp-21-8511-2021>, 2021.
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33. Evans, S., Dawson, E., and Ginoux, P. (2020), Linear Relation Between Shifting ITCZ and Dust Hemispheric Asymmetry. *Geophysical Research Letters*, 47(22), e2020GL090499.
34. Stock, C. A., Dunne, J. P., Fan, S., Ginoux, P., *et al.* (2020), Ocean Biogeochemistry in GFDL's Earth System Model 4.1 and its response to increasing atmospheric CO₂. *Journal of Advances in Modeling Earth Systems*, 12(10), e2019MS002043.
35. Yu, Y., Kalashnikova, O. V., Garay, M. J., Lee, H., Notaro, M., Campbell, J. R., *et al.* (2020), Disproving the Bodélé depression as the primary source of dust fertilizing the Amazon Rainforest. *Geophysical Research Letters*, 47, e2020GL088020. <https://doi.org/10.1029/2020GL088020>

36. Delworth, T. L., Cooke, W. F., Adcroft, A., Bushuk, M., Chen, J.-H., Dunne, K. A., et al. (2020), SPEAR: The next generation GFDL modeling system for seasonal to multidecadal prediction and projection. *Journal of Advances in Modeling Earth Systems*, 12, e2019MS001895. <https://doi.org/10.1029/2019MS001895>
37. Dunne, J. P., Horowitz, L. W., Adcroft, A. J., Ginoux, P., Held, I. M., John, J. G., et al. (2020), The GFDL Earth System Model version 4.1 (GFDL-ESM 4.1): Overall coupled model description and simulation characteristics. *Journal of Advances in Modeling Earth Systems*, 12, e2019MS002015. <https://doi.org/10.1029/2019MS002015>
38. Horowitz, L. W., Naik, V., Paulot, F., Ginoux, P. A., Dunne, J. P., Mao, J., et al. (2020), The GFDL Global Atmospheric Chemistry–Climate Model AM4.1: Model Description and Simulation Characteristics. *Journal of Advances in Modeling Earth Systems*, 12, e2019MS002032. <https://doi.org/10.1029/2019MS002032>
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40. Pu, B., Ginoux, P., Guo, H., Hsu, N. C., Kimball, J., Marticorena, B., Malyshev, S., Naik, V., O'Neill, N. T., Pérez García-Pando, C., Paireau, J., Prospero, J. M., Shevliakova, E., and Zhao, M. (2020), Retrieving the global distribution of the threshold of wind erosion from satellite data and implementing it into the Geophysical Fluid Dynamics Laboratory land–atmosphere model (GFDL AM4.0/LM4.0), *Atmos. Chem. Phys.*, 20, 55–81, <https://doi.org/10.5194/acp-20-55-2020>.
41. Evans, S., Malyshev, S., Ginoux, P., & Shevliakova, E. (2019), The impacts of the dust radiative effect on vegetation growth in the Sahel. *Global Biogeochemical Cycles*, 33, 1582–1593. <https://doi.org/10.1029/2018GB006128>
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44. Pu, B., Ginoux, P., Kapnick, S., and Yang, X. (2019), Seasonal prediction potential for springtime dustiness in the United States. *Geophysical Research Letters*, 46, 9163–9173. <https://doi.org/10.1029/2019GL083703>
45. Pu, B., Ginoux, P., Guo, H., Hsu, N. C., Kimball, J., Marticorena, B., Malyshev, S., Naik, V., O'Neill, N. T., García-Pando, C. P., Prospero, J. M., Shevliakova, E., and Zhao, M. (2019), Retrieving the global distribution of threshold of wind erosion from satellite data and implementing it into the GFDL AM4.0/LM4.0 model, *Atmos. Chem. Phys. Discuss.*, <https://doi.org/10.5194/acp-2019-223>.
46. Paulot, F., Paynter, D., Ginoux, P., Naik, V., and Horowitz, L. W. (2018), Changes in the aerosol direct radiative forcing from 2001 to 2015: observational constraints and regional mechanisms, *Atmos. Chem. Phys.*, 18, 13265–13281, <https://doi.org/10.5194/acp-18-13265-2018>.
47. Strong, J. D. O., Vecchi, G. A., and Ginoux, P. (2018), The climatological effect of Saharan dust on global tropical cyclones in a fully coupled GCM. *J. Geophys. Res.*, 123, 5538–5559. <https://doi.org/10.1029/2017JD027808>.
48. Pu, B. and P. Ginoux, (2018), Climatic factors contributing to long-term variations in surface fine dust concentration in the United States, *Atmos. Chem. Phys.*, 18, 4201–4215, <https://doi.org/10.5194/acp-18-4201-2018>
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- SSTs. *Journal of Advances in Modeling Earth Systems*, 10, 691–734.
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Book Chapters

1. Sindelarova, K., Arellano, S., Ginoux, P., Granier, C., Lennartz, S. T., & Simpson, D. (2023). Emissions on Global Scale. In *Handbook of Air Quality and Climate Change* (pp. 1-42). Singapore: Springer Nature Singapore.

2. *Atmospheric Chemistry and Global Change*, Edited by G. P. Brasseur, J. J. Orlando and G. S. Tyndall, Oxford University Press, New York, 1999.
3. *Remote Sensing and Climate Modeling: Synergies and Limitations*, Edited by M. Beniston and M. M. Verstraete, Kluwer Academic Publishers, Netherlands, 2001.
4. *Emissions of Chemical Species and Aerosol into the Atmosphere*, Edited by C. Granier, P. Artaxo, and C. Reeves, Kluwer Academic Publishers, Netherlands, 2004.

Scientific Reports

1. Hoi Ga (“Veronica”) Chan, Paul Ginoux, Sergey Malyshev, and Sarah Kapnick, Parameterization of snowpack albedo reduction by light-absorbing impurities, GFDL Biogeochemistry, *Atmospheric Chemistry, and Ecosystem Division Technical Memorandum*, GFDL202203, 2022
2. Naik, V. et al.: Short-Lived Climate Forcers. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press. August 2021.
3. WMO Airborne dust Bulletin, No 5, July 2021
(https://library.wmo.int/index.php?lvl=notice_display&id=19826#.YOgcGOgzY2w)
4. WMO Report. Sand and Dust Storm Warning Advisory and Assessment System, GAW Report N° 254, WWRP 2020-4
5. WMO Airborne dust Bulletin, N°4, May 2020
(https://library.wmo.int/doc_num.php?explnum_id=10317)
6. Report of the Intergovernmental Panel on Climate Change (IPCC), Chapter 5. Aerosols, their direct and indirect effects, Cambridge University Press, 2001.
7. A report of findings and recommendations on the impacts of aviation on climate change, FAA, 2006.

Other publications

Ginoux, P., Development of a telescopic atmospheric chemistry transport model, and interpretation of the results of the MLOPEX field campaign, Free University of Brussels, 303 pp., 1997. (Ph. D. Thesis in French).

Baudouin, Y., and P. Ginoux, Techniques CAD/CAM, *Report MA513-22*, Royal Military School, Belgium, 1990.

Ginoux, P., Y. Baudoin, and E. Ponselet, Criteres de qualifications en vibrations de materiels electro-acoustiques, *Revue de l'Ecole Polytechnique* (Journal of the Royal Military School of Belgium, in French), 3, 4-14, 1989.

V. PROFESSIONAL

Funded proposals

- 2024-2026: NASA 23-EMIT23-0043: Assessing the Impact of Dust from Ephemeral Lakes on Earth's Weather and Climate, PI: A. Evan (UCSD), Co: P. Ginoux
- 2023-2025: NOAA Infrastructure Investment and Jobs Act (IIJA) – Wildfire (ORF), Co-PI: P. Ginoux
- 2018-2023: NASA NNH12ZDA0060-EVI4 (Earth Venture Instrument-4): Earth Surface Mineral Dust Source Investigation (EMIT); PI: R. Green (JPL), Co-I: P. Ginoux
- 2019-2022: NASA NNH19ZDA001N-HMA: Reducing uncertainty in future projections of High Mountain Asia Climate through improved understanding of natural and anthropogenic processes controlling biomass burning and dust, PI: S. Kapnick (NOAA-GFDL), Science PI: P. Ginoux
- 2019-2021: NOAA NGGPS: Implementation and testing of aerosol emission from dynamic fire model, PI: P. Ginoux
- 2016-2020: NASA NNH16ZDA001N-MAP: Using Radiation Measurements to Constrain the Anthropogenic Contribution to Dust Radiative Forcing and Its Climate Response, PI: R. Miller (NASA-GISS), Co-I: P. Ginoux
- 2016-2019: NASA NNH15ZDA001N-HMA: Quantifying the role of dust on precipitation, snow, and runoff in high mountain Asia: PI: S. Kapnick (NOAA-GFDL), Science PI: P. Ginoux
- 2015-2018: NASA NNH14ZDA001-ACMAP: Detection and attribution of dust sources to understand dust effects on climate and air quality, PI: P. Ginoux
- 2015-2016: NOAA R2O NGGPS: Implementation and testing of regional and global dust forecasting, PI: P. Ginoux
- 2013-2016: NASA NNH12ZD001N-MAP: Contribution to radiative forcing and climate by anthropogenic sources of soil dust aerosols, PI: R. Miller (NASA-GISS), Co-I: P. Ginoux
- 2013-2015: Princeton U. Health Grand challenges: Predictive models of meningitis risk in the African meningitis belt, PI: N. E. Basta (Princeton University), Co-PI: P. Ginoux
- 2012-2013: NASA GSFC, improve dust sources in GEOS-5
- 2007-2008: NASA GLORY Science team: Co-PI: P. Ginoux
- 2005-2007: NASA NRA NN-H-04-Z-YS-003-N: Understanding the Mechanisms and Effects of Ice Nucleation in Tropical Cyclone, PI: P. Ginoux
- 2001-2003: NASA NRA 00-OES-09: Variability of Aerosols Distribution and optical properties simulated by GOCART model using TOMS aerosol data and AERONET measurements, PI: P. Ginoux
- 2000-2001: NASA NRA 99-OES-04: A 3-D model analysis of satellite and ACE-Asia data, NASA, PI: M. Chin (NASA-GSFC), Co-I: P. Ginoux
- 2000-2001: NASA NRA 99-OES-04: The interactions between the troposphere and the stratosphere: The impact of climate change, PI: M. Schoeberl (NASA-GSFC), Co-I: P. Ginoux

Professional and Honorary Organizations

- Invited professor by the LISA (Paris, France): April 2015
- European Geophysical Union: 2014 to present
- European Association of Geochemistry, 2013 to present
- American Geophysical Union: 1997 to present
- TOMS satellite Science Team: 2001-2005
- GLORY Advisory Science Team: 2006-2007

Awards

- 2018 NOAA OAR Outstanding Paper Award for Climate: Zhao, M., Golaz, J-C, Held, I., Ramaswamy, V., Lin, S-J., Ming, Y., Ginoux, P., Wyman, B., Donner, L., Paynter, D., and Guo, H. (2016). Uncertainty in model climate sensitivity traced to representations of cumulus precipitation microphysics. *Journal of Climate*, DOI:10.1175/JCLI-D-15-0191.
- 2014, 2015, 2016, 2017, 2018 Highly Cited Researcher (Publons Research ID C-2326-2008)
- 2013 AGU Atmospheric Sciences Ascent award for sustained pioneering work on aerosols.
- 2012 US Department of Commerce Gold medal for Meritorious Federal Service
- 2007 DOI and NASA William T. Pecora award: shared as a member of TOMS Science team.
- 2005 US Department of Commerce Silver medal for Meritorious Federal Service

2005 NASA GSFC Journal citation award for Ginoux et al., *J. Geophys. Res.* 2001
2004 ESI Thompson citation for Fast Moving Front in Geosciences

Reviews

Journals: Aeolian Research, Atmospheric Physics and Chemistry, Atmospheric Research, Atmospheric Science Letters, Earth's Future, Environmental International, Geophysical Research Letters, Global Biogeochemical Cycles, IEEE JSTARS, IEEE TGRS, International of Climatology, Journal of Advances in Modeling Earth Systems, Journal of Aerosol, Journal of Applied Meteorology, Journal of Atmospheric and Oceanic Technology, Journal of Climate, Journal of Climate Dynamics, Journal of Climatology, Journal of Environmental Engineering and Science, Journal of Geophysical Research, Journal of Quantitative Spectroscopy and Radiative Transfer, Monthly Weather Review, Nature, Proceedings of the National Academy of Sciences, Quarterly Journal of the Royal Meteorological Society, Remote Sensing of Environment, Science of the Total Environment, Tellus, Urban Climate, Weather Forecasting

Research proposals: USA: DOE, NASA, NOAA, NSF
Austria: Austrian Science Fund
Belgium: Fonds National de la Recherche Scientifique
Binational (Israel-US) Science Foundation
Canada: National Research Council
Chile: Climat AMSUD
France: French National Research Agency
Germany: Deutsche Forschungsgemeinschaft
Hong Kong: Research Grants Council
Israel: National Science Foundation
Quebec: Fonds de recherche du Québec
Saudi Arabia: King Fahd University
Switzerland: ETH Zurich
UK: Natural Environment Research Council

Panel review: LISA (Creteil-Paris, France): lab review, 2013
APS-2 satellite: satellite science mission review 2011
DOE Research proposals reviews: 2011, 2014
Laboratoire d'Optique Atmosphérique (Lille, France): lab review, 2008
NOAA NWS: dust forecasting review, 2008
IPCC WG1 4AR (US Government review): 2006
NASA research proposals reviews: 2005, 2006, 2010
ESSP3 (renamed later CALIPSO) Lidar Algorithms: 2001

Service to profession:

WMO SDS-WAS Regional (Americas node) Steering committee, 2018-2022
NOAA Government monitor of aerosol modeling, 2015-2018
NOAA NGGPS Aerosols and Atmospheric Composition team, 2015-present
Scientific steering committee, 8th International workshop on Dust, Lisbon, Portugal, 2015-2016
GEWEX committee on Aerosols, 2008-2015
Organizing committee member, 8th International AeroCom workshop, Princeton, NJ, 2009
Convener of a session at AGU Fall meeting, San Francisco, CA, 2003

Invited Talks

ICAMS (Silver Spring, USA, 2023), GRASP Workshop (Villeneuve-d'Ascq, France, 2023), AEROCOM XXI (Oslo, Norway, 2023), WMO-Barcelona Dust regional Center (Barcelona, Spain, 2022), Joint Oslo seminar (Oslo, Norway, 2022), University of Grenoble, Institut des Geosciences de l'Atmosphère (Grenoble, France, 2019), George Mason University (Fairfax, VA, 2019), Fall AGU (San Francisco, 2019), EMIT Science Team meeting (Pasadena, CA, USA, 2019), AEROCOM XVIII (Barcelona, Spain, 2019), Laboratoire d'Aerologie (Toulouse, France, 2019), AEROCOM XVII (College Park, MD, USA, 2018), ICAR X (keynote lecture, Bordeaux, France, 2018), Dust Workshop IX (keynote lecture, Tenerife, Canary Island 2018), EGU (Vienna, Austria, 2018), AEROCOM XVI (Helsinki, Finland), Goldschmidt Conference (Paris, France, 2017), NASA HIMAT science team meeting (Juneau, AK, 2017), Barcelona Supercomputing Center (Barcelona, Spain, 2017), AEROCOM-XV (Beijing, China, 2016), 8th Dust Workshop (Lisbon, Portugal, 2016), Fall AGU (San Francisco, 2015), Weizmann Institute (Rehovot, Israel, 2015), Batsheva de Rothschild Seminar on Atmospheric dust, dust deposits, and soils in deserts and the desert fringe (Jerusalem and Negev desert, Israel, 2015), AEROCOM-XIV (Frascati, Italy, 2015), Laboratoire Interuniversitaire des Systèmes Atmosphériques (Paris, France, 2015), Conference on Airborne dust, climate change, and human health (University of Miami, FL, 2015), Fall AGU (San Francisco, CA, 2014), University of Nebraska-Lincoln (Lincoln, NE, 2014), Columbia University (NYC, NY, 2014), AEROCOM-XII workshop (Hamburg, Germany, 2013), Goldschmidt conference (keynote address, Florence, Italy, 2013), Loughborough University (Loughborough, England, 2013), Sultan Qaboos University (Muscat, Sultanate of Oman, 2013), King Abdullah University of Science and Technology (Jeddah, Kingdom of Saudi Arabia, 2013), Stony Brook University (Long Island, NY, 2013), Fall AGU (San Francisco, CA, 2012), Workshop on Dust, Climate and Health in Sub-Saharan Africa (Columbia University, NY, 2012), Fall AGU (San Francisco, CA, 2011), Workshop on Observations and modeling of aerosol and clouds properties for climate studies (Paris, France, 2011), Belgian Institute for Space Aeronomy (Brussels, Belgium, 2011), AeroCenter (NASA GSFC, MD, 2011), Lamont-Doherty Dust Records meeting (Palisades, NY, 2010), DOE Atmospheric Science Research (keynote address, Bethesda, MD, 2010), US emission initiative (Boulder, CO, 2010), Third International dust workshop (Leipzig, Germany, 2008), IPSL/CEA (Paris, France, 2008), Yoram Kaufman symposium (MD, 2007), NASA GSFC (MD, 2007), Laboratoire d'Optique Atmosphérique (Lille, France, 2006), GEIA-ACCENT workshop (Paris, France, 2006), AEROCOM-V workshop (VA, 2006), Rutgers University (NJ, 2006), DOE Atmospheric Sciences Program (Washington DC, 2006), Yale University (New Haven, CT, 2005), NASA GISS (NYC, NY, 2005), GEIA Workshop on emission of atmospheric tracers (Paris, France, 2005), Columbia University (NYC, NY, 2004), US-India State departments initiative on climate research (New Delhi, India, 2004), AGU fall meeting (San Francisco, CA, 2004), Second International Workshop on Mineral dust (Paris, France, 2003), ICAR-5 (Lubbock, TX, 2002), IAMAS (Innsbruck, Austria, 2001), AMS annual meeting (Albuquerque, NM, 2001), Miami University (Miami, FL, 2001), First International Workshop on mineral dust (Boulder, CO, 1999), Second Gentner Symposium on Geosciences (Nazareth, Israel, 1999).

Contributed Talks

AMS 2024 (4), AGU 2023 (11), GEIA (Brussels, Belgium, 2023), AGU 2022 (6), AMS 2022 (3), EGU 2022 (1), AGU 2021 (8), AMS 2021 (1), Goldschmidt 2021 (4), EGU 2021 (4), AGU 2020 (7), EGU 2020 (2), AMS 2020 (3), AGU 2020 (8), EGU 2019 (4), CMIP6 Barcelona 2019 (2), Fall AGU 2018 (9), 4th International Symposium on the Effects of Climate Change on the World's Ocean 2018 (1), EGU 2018 (1), Fall AGU 2017 (3), AMS Annual meeting 2017 (3), Fall AGU 2016 (4), AMS Annual meeting 2016 (1), Fall AGU 2015 (3), Spring EGU 2015 (1), Fall AGU 2014 (5), Fall AGU 2013 (1), Fall AGU 2012 (2), Fall AGU 2009 (1), Fall AGU 2008 (2), IGAC 2008 (2), Aerocom workshops (2023, 2022, 2010, 2009, 2007, 2006, 2004), Fall AGU 2007 (2), Fall AGU 2003 (6), Fall AGU 2003 (session convener), Fall AGU 2002 (2), IAMAS 2001 (3), Spring AGU 2000 (3), Fall AGU 2000 (3), Spring AGU 1999 (1), Fall AGU 1998 (1), Fall AGU 1997 (1), IUGG 1995 (1), IGAC 1994 (1)

VI. TEACHING

Lectures

Spring 2016: Guest lecturer EESC G9910 Columbia University: US Dust project
Fall 2011: Princeton University CEE593/AOS593: Aerosol Observations & Modeling
Spring 2010: Princeton University CEE599B: Aerosol Observations & Modeling
Spring 2008: Princeton University AOS 580: Aerosol, Cloud and Climate Change
Summer 2007: ACCENT Summer School (Ile d'Oleron, France): Aerosols emission
2003-2007: Princeton University AOS-527: substituted 2-6 lectures a class

Supervision

Summer interns:

Eliza Dawson NOAA Hollings, 2016
Erik Gould NOAA Hollings, 2011
Arielle Alpert NOAA Hollings, 2011

Undergraduate student:

Dmitri Garbuzov (CS, Princeton University): summers from 2007 to 2009
Alia Wofford (MS, Howard University)

Graduate Student co-supervision or committee member:

Geeta Persad (AOS, Princeton University): 2016 PhD Graduation
Jeffrey Strong (AOS, Princeton University): 2016 PhD Graduation
Aaron Adams (RSMAS, University of Miami): 2012 to 2015
Kang Sun (CEE, Princeton University): 2015 PhD Graduation
David Miller (CEE, Princeton University): 2014 PhD Graduation
Ilissa Ocko (AOS, Princeton University): 2013 PhD Graduation
Yan Zhang (CEE, Princeton University): 2010 PhD Graduation
Fuyu Li (AOS, Princeton University): 2010 PhD Graduation
Cynthia Randles (AOS, Princeton University): 2007 PhD Graduation

Post-doctoral:

Xiaohan Li (AOS, Princeton University): 2023 - present
Arman Pouyaei (AOS, Princeton University): 2023 - present
Qianqian Song (AOS, Princeton University): 2022 - 2024
Yan Yu (AOS, Princeton University): 2019 - 2022
Veronica Chan (AOS, Princeton University): 2017 - 2019
Bing Pu (AOS, Princeton University): 2015 - 2018
Stuart Evans (AOS, Princeton University): 2015 - 2017
Juliette Paireau (EEB, Princeton University): 2015 - 2016
Adrien Deroubaix (AOS, Princeton University): 2015 - 2016
Dilip Ganguli (AOS, Princeton University): 2007 - 2010
Brian Maggi (AOS, Princeton University): 2007 - 2010
Shekar Reddy (AOS, Princeton University): 2004 - 2006