

# CURRICULUM VITAE

October 2023

## I. PERSONAL

### **Paul Ginoux, Ph.D.**

98 S Main Street  
Cranbury, NJ 08512  
USA

**Current Appointment:** Senior Physical Scientist  
National Oceanic and Atmospheric Administration  
Geophysical Fluid Dynamics Laboratory  
Forrestal Campus – Route 1  
201 Forrestal Road  
Princeton, NJ-08542-0308

## 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 (10/2023): h-index=55, citations=20,303

Google Scholar (10/2023): h-index=66, citations=29,425

1. 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>
2. 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>
3. 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>
4. Réveillet, M., Dumont, M., Gascoïn, 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>
5. 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>
6. 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.
7. 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>.
8. 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>
9. 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.
10. 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>.
11. 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>.
12. 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>.
13. 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>.
14. Klose, M., Jorba, O., Gonçalves Ageitos, M., Escribano, J., Dawson, M. L., Obiso, V., Di Tomaso, E., Basart, S., Montané Pinto, G., Macchia, F., Ginoux, P., et al., (2021) Mineral dust cycle in the Multiscale Online Nonhydrostatic Atmosphere Chemistry model (MONARCH) Version 2.0, *Geosci. Model Dev.*, 14, 6403–6444, <https://doi.org/10.5194/gmd-14-6403-2021>.
15. 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>.
16. 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>.
17. 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>.
18. 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>.
19. 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.
  20. Yu, Y., et al. (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>.
  21. 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.
  22. 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.
  23. Ming, Y., Loeb, N. G., Lin, P., Shen, Z., Naik, V., Singer, C. E., (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>
  24. 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>.
  25. Mortier, A., et al. (2020), Evaluation of climate model aerosol trends with ground-based observations over the last 2 decades – an AeroCom and CMIP6 analysis, *Atmos. Chem. Phys.*, 20, 13355–13378, <https://doi.org/10.5194/acp-20-13355-2020>.
  26. Green, R. O. et al. (2020), The Earth Surface Mineral Dust Source Investigation: An Earth Science Imaging Spectroscopy Mission, *2020 IEEE Aerospace Conference*, Big Sky, MT, USA, 2020, 1-15, doi: 10.1109/AERO47225.2020.9172731.
  27. Evans, S., Dawson, E., and Ginoux, P. (2020), Linear Relation Between Shifting ITCZ and Dust Hemispheric Asymmetry. *Geophysical Research Letters*, 47(22), e2020GL090499.
  28. 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 CO<sub>2</sub>. *Journal of Advances in Modeling Earth Systems*, 12(10), e2019MS002043.
  29. 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>
  30. 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>
  31. 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>
  32. 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>
  33. Paulot, F., Paynter, D., Winton, M., Ginoux, P., Zhao, M., & Horowitz, L. W. (2020), Revisiting the impact of sea salt on climate sensitivity. *Geophysical Research Letters*, 47, e2019GL085601. <https://doi.org/10.1029/2019GL085601>
  34. 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>.

35. 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>
36. Fan, S., P. Ginoux, C.J. Seman, L.G. Silvers, and M. Zhao, (2019), Toward Improved Cloud-Phase Simulation with a Mineral Dust and Temperature-Dependent Parameterization for Ice Nucleation in Mixed-Phase Clouds. *J. Atmos. Sci.*, 76, 3655–3667, <https://doi.org/10.1175/JAS-D-18-0287.1>
37. Held, I. M., Guo, H., Adcroft, A., Dunne, J. P., Horowitz, L. W., Krasting, J., et al. (2019), Structure and performance of GFDL's CM4.0 climate model. *Journal of Advances in Modeling Earth Systems*, 11, 3691–3727. <https://doi.org/10.1029/2019MS001829>
38. 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>
39. 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>.
40. 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>.
41. 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>.
42. 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>
43. 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>.
44. Schnell, J. L., Naik, V., Horowitz, L. W., Paulot, F., Mao, J., Ginoux, P., Zhao, M., and Ram, K. (2018), Exploring the relationship between surface PM<sub>2.5</sub> and meteorology in Northern India, *Atmos. Chem. Phys.*, 18, 10157-10175, <https://doi.org/10.5194/acp-18-10157-2018>.
45. Zhao, M., Golaz, J.-C., Held, I. M., Guo, H., Balaji, V., Benson, R., et al. (2018), The GFDL global atmosphere and land model AM4.0/LM4.0: 1. Simulation characteristics with prescribed SSTs. *Journal of Advances in Modeling Earth Systems*, 10, 691–734. <https://doi.org/10.1002/2017MS001208>.
46. Zhao, M., Golaz, J.-C., Held, I. M., Guo, H., Balaji, V., Benson, R., et al. (2018), The GFDL global atmosphere and land model AM4.0/LM4.0: 1. Simulation characteristics with prescribed SSTs. *Journal of Advances in Modeling Earth Systems*, 10, 691–734. <https://doi.org/10.1002/2017MS001208>
47. Paulot, F., Paynter, D., Ginoux, P., Naik, V., and L. Horowitz, (2018), Changes in the aerosol direct radiative forcing from 2001 to 2015: observational constraints and regional mechanisms, *Atmos. Chem. Phys. Discuss.*
48. Ginoux, P. (2017), Atmospheric chemistry: Warming or cooling dust, *Nature Geoscience*, 10(4), doi:10.1038/ngeo2923.
49. Ginoux, P. and A. Deroubaix, (2017), Space Observations of Dust in East Asia, in *Air Pollution in Eastern Asia: An Integrated Perspective*, ISSI Scientific Report Series, vol 16, 365-383, Springer, Cham, doi:10.1007/978-3-319-59489-7\_17.
50. Kim, D., M. Chin, E. M. Kemp, Z. Tao, C. D. Peters-Lidard, and P. Ginoux, (2017), Development of high-resolution dynamic dust source function – A case study with a strong dust storm in a regional model, *Atmos. Environm.*, 159, doi:10.1016/j.atmosenv.2017.03.045.
51. Ocko, I. B., and P. Ginoux, (2017), Comparing multiple model-derived aerosol optical properties to collocated ground-based and satellite measurements, *Atm. Chem. Phys.*, 17(7), doi:10.5194/acp-17-4451-2017.

52. Paulot, F., D. J. Paynter, P. Ginoux, V. Naik, S. Whitburn, M. Van Damme, L. Clarisse, P.-F. Coheur, and L. W. Horowitz, (2017), Gas-aerosol partitioning of ammonia in biomass burning plumes: Implications for the interpretation of spaceborne observations of ammonia and the radiative forcing of ammonium nitrate, *Geophys. Res. Lett.*, 44(15), doi:10.1002/2017GL074215.
53. Pu, B. and P. Ginoux, (2017), Climatic factors contributing to long-term variations of fine dust concentration in the United States, *Atm. Chem. Phys.*, doi:10.5194/acp-2017-821.
54. Pu, B. and P. Ginoux, (2017), Projection of American dustiness in the late 21<sup>st</sup> century due to climate change, *Scientific Reports*, 7, 5553, doi:10.1038/s41598-017-05431-9.
55. Evans, S., P. Ginoux, S. Malyshev, and E. Shevliakova, (2016), Climate-vegetation interaction and amplification of Australian dust variability, *Geophys. Res. Lett.*, 43, 11,823–11,830, doi:10.1002/2016GL071016.
56. Pu, B. and P. Ginoux, (2016), The impact of the Pacific Decadal Oscillation on springtime dust activity in Syria, *Atmos. Chem. Phys.*, 16, 13431-13448, doi:10.5194/acp-16-13431-2016.
57. Ge, C., J. Wang, S. Carn, K. Yang, P. Ginoux, and N. Krotkov, (2016), Satellite-based global volcanic SO<sub>2</sub> emissions and sulfate direct radiative forcing during 2005–2012, *J. Geophys. Res. Atmos.*, 121, 3446–3464, doi:10.1002/2015JD023134.
58. Baddock, M. C., P. Ginoux, J. E. Bullard, and T. E. Gill, (2016), Do MODIS-defined dust sources have a geomorphological signature?, *Geophys. Res. Lett.*, 43, doi:10.1002/2015GL067327.
59. Paulot, F., P. Ginoux, W. F. Cooke, L. J. Donner, S.-M. Fan, M. Lin, J. Mao, V. Naik, and L. W. Horowitz, (2016), Sensitivity of nitrate aerosols to ammonia emissions and to nitrate chemistry: implications for present and future nitrate optical depth, *Atm. Chem. Phys.*, doi:10.5194/acp-16-1459-2016.
60. Guo, H., J.-C. Golaz, L. J. Donner, B. Wyman, M. Zhao, and P. Ginoux, (2015), CLUBB as a unified cloud parameterization: opportunities and challenges, *Geophys. Res. Lett.*, 42(11), DOI:10.1002/2015GL063672.
61. Strong, J. D., G. A. Vecchi, and P. Ginoux, (2015), The Response of the Tropical Atlantic and West African Climate to Saharan Dust in a Fully Coupled GCM, *J. Climate*, 28(18), DOI:10.1175/JCLI-D-14-00797.1.
62. Zhao, M., J.-C. Golaz, I. M. Held, V. Ramaswamy, S.-J. Lin, Y. Ming, P. Ginoux, B. Wyman, L. J. Donner, D. J. Paynter, and H. Guo, (2015), Uncertainty in model climate sensitivity traced to representations of cumulus precipitation microphysics, *J. Climate*, DOI:10.1175/JCLI-D-15-0191.1.
63. Guo, Huan, Jean-Christophe Golaz, Leo J. Donner, Paul Ginoux, Richard S. Hemler, (2014), Multivariate Probability Density Functions with Dynamics in the GFDL Atmospheric General Circulation Model: Global Tests, *J. Climate*, 27, 2087–2108.
64. Kim, D., M. Chin, H. Bian, Q. Tan, M. E. Brown, T. Zheng, R. You, T. Diehl, P. A. Ginoux, and T. Kucsera, (2013), The effect of the dynamic surface bareness on dust source function, emission, and distribution, *J. Geophys. Res.*, 118, doi:10.1029/2012JD017907.
65. Fan, S.-M., J. P. Schwarz, J. Liu, D. W. Fahey, P. Ginoux, L. W. Horowitz, H. Levy II, Y. Ming, and J. R. Spackman, (2012), Inferring ice formation processes from global-scale black carbon profiles observed in the remote atmosphere and model simulations, *J. Geophys. Res.*, 117, D23205, doi: 10.1029/2012JD018126.
66. Fiore, et al., (2012), Global air quality and climate, *Chem. Soc. Rev.*, 41, 6663-6683, doi: 10.1039/C2CS35095E.
67. Ginoux, P., J. M. Prospero, T. E. Gill, N. C. Hsu, and M. Zhao, (2012), Global scale attribution of anthropogenic and natural dust sources and their emission rates based on MODIS Deep Blue aerosol products, *Rev. Geophys.*, 50, RG3005, doi:10.1029/2012RG000388.
68. Ginoux, P., L. Clarisse, C. Clerbaux, P.-F. Coheur, O. Dubovik, N. C. Hsu, and M. Van Damme, (2012), Mixing of dust and NH<sub>3</sub> observed globally over anthropogenic dust sources, *Atm. Chem. Phys.*, 12, 7351-7363, doi:10.5194/acp-12-7351-2012.
69. Koffi, B., P. Ginoux, et al., (2012), Application of the CALIOP Layer Product to evaluate the vertical distribution of aerosols estimated by global models: Part 1. AeroCom phase I results, *J. Geophys. Res.*, 117, D10201, doi:10.1029/2011JD016858.
70. Ocko, I., V. Ramaswamy, P. Ginoux, Y. Ming, and L. Horowitz, (2012), Sensitivity of the aerosol direct radiative forcing balance to physical climate factors, *J. Geophys. Res.*, 117, D20203, doi:10.1029/2012JD018019.

71. Donner, L., P. Ginoux, et al., (2011), The Dynamical Core, Physical Parameterizations, and Basic Simulation Characteristics of the Atmospheric Component AM3 of the GFDL Global Coupled Model CM3, *J. Climate*, 24(13), doi: 10.1175/2011JCLI3955.1.
72. Huneeus, N., P. Ginoux, et al., (2011), Global dust model intercomparison in AeroCom phase I, *Atmos. Chem. Phys. Discuss.*, 10, 23781-23864, doi:10.5194/acpd-10-23781-2010
73. Miller, D J., K Sun, M A Zondlo, D Kanter, O Dubovik, E J Welton, D M Winkler, and P. Ginoux (2011), Assessing boreal forest fire smoke aerosol impacts on U.S. air quality: A case study using multiple data sets, *J. Geophys. Res.*, 116, D22209, doi:10.1029/2011JD016170.
74. Draxler, D., P. Ginoux, and A. F. Stein, (2010), An empirically derived emission algorithm for wind blown dust, *J. Geophys. Res.*, 105, D16212, doi:10.1029/2009JD013167.
75. Ginoux, P., D Garbuzov, and N C Hsu, (2010), Identification of anthropogenic and natural dust sources using Moderate Resolution Imaging Spectroradiometer (MODIS) Deep Blue level 2 data, *J. Geophys. Res.*, 115, D05204, doi:10.1029/2009JD012398.
76. Li, F., P. Ginoux, V. Ramaswamy, (2010), Transport of Patagonian dust to Antarctica, *J. Geophys. Res.*, D18217, doi:10.1029/2009JD012356.
77. Li, F., V. Ramaswamy, P. Ginoux, A. Broccoli, T. Delworth, and F. Zeng, (2010), Toward understanding the dust deposition in Antarctica during the Last Glacial Maximum: Sensitivity studies on plausible causes, *J. Geophys. Res.*, 115, D24120, doi:10.1029/2010JD014791.
78. Salzmann, M., Y. Ming, J-C Golaz, P. Ginoux, H. Morrison, M. Kramer, and L. Donner, (2010), Two-moment bulk stratiform cloud microphysics in the GFDL AM3 GCM: Description, evaluation, and sensitivity tests, *Atmos. Chem. Phys.*, 10(12), 5361-5370.
79. Ganguly, D., P. Ginoux, V. Ramaswamy, D. M. Winker, B. N. Holben, and S. N. Tripathi, (2009), Retrieving the composition and concentration of aerosols over the Indo-Gangetic basin using CALIOP and AERONET data. *Geophys. Res. Letters*, 36, L13806, doi:10.1029/2009GL038315.
80. Ganguly, D., P. Ginoux, V. Ramaswamy, O. Dubovik, J. Welton, E. A. Reid, and B. N. Holben, (2009), Inferring the composition and concentration of aerosols by combining AERONET and MPLNET data: comparison with other measurements and utilization to evaluate GCM output, *J. Geophys. Res.*, doi:10.1029/2009JD011895.
81. Koch, D., and P. Ginoux et al., (2009), Evaluation of black carbon estimations in global aerosol models, *Atmos. Chem and Phys.*, 9(22), 9001-9026.
82. Liu, Junfeng, D. L. Mauzerall, L. W. Horowitz, P. Ginoux, and A. M. Fiore, (2009), Evaluating inter-continental transport of fine aerosols: (1) Methodology, global aerosol distribution and optical depth, *Atmos. Environm.*, 43, 4327-4338.
83. Magi, B. I., P. Ginoux, Y. Ming, and V. Ramaswamy, (2009), Evaluation of tropical and extratropical Southern Hemisphere African aerosol properties simulated by a climate model, *J. Geophys. Res.*, doi:10.1029/2008JD011128.
84. Monks, P. S., and P. Ginoux, et al., (2009), Atmospheric composition change-global and regional air quality, *Atmos. Environm.*, 43(33), doi:10.1016/j.atmosenv.2009.08.21.
85. Quaas, J., and P. Ginoux et al., (2009), Aerosol indirect effects – general circulation model intercomparison and evaluation with satellite data, *Atm. Chem. Phys.*, 9(22), 8697-8717.
86. Dubovik O., T. Lapyonok, Y. J. Kaufman, M. Chin, P. Ginoux, and A. Sinyuk, (2008), Retrieving global aerosol sources from satellite using inverse modeling, *Atmos. Chem. Phys.*, 8, 209-250.
87. Li F., P. Ginoux, and V. Ramaswamy, (2008), Distribution, transport, and deposition of mineral dust in the Southern Ocean and Antarctica: Contribution of major sources, *J. Geophys. Res.*, 113, D10207, doi:10.1029/2007JD009190.
88. Chin M., T. Diehl, P. Ginoux, and W. Malm, (2007), Intercontinental transport of pollution and dust aerosols: implications for regional air quality, *Atmos. Chem. Phys.*, 7(21), 5501-5517.
89. Ming Y., V. Ramaswamy, L. J. Donner, V. T. J. Phillips, S. A. Klein, P. A. Ginoux, and L. W. Horowitz, (2007), Modeling the interactions between aerosols and liquid water clouds with a self-consistent scheme in a general circulation model, *J. Atmos. Sci.*, 64(4), 1189-1209.
90. Rotstayn L., W. Cai, M. R. Dix, G. D. Farquhar, Y. Feng, P. Ginoux, M. Herzog, A. Ito, J. Penner, M. L. Roderick, and M. Wang, (2007), Have Australian rainfall and cloudiness increased due to the remote effects of Asian anthropogenic aerosols?, *J. Geophys. Res.*, 112, D09202, doi:10.1029/2006JD007712.

91. Textor C., M. Schulz, s. Guibert, S. Kinne, V. Balkanski, S. Bauer, T. Berntsen, T. Berglen, O. Boucher, and P. Ginoux, et al., 2007, The effect of harmonized emissions on aerosol properties in global models - an AeroCom experiment, *Atmos. Chemistry and Physics*, 7, 4489-4501.
92. Weaver C., M. Chin, P. Ginoux, O. Dubovik, D. Flintner, A. Zia, L. Remer, B. Holben, and W. Gregg, (2007), Assimilation of MODIS radiances in a global aerosol transport model, *J. Atm. Sci.*, 64(3), 808-827..
93. Cakmur R. V. , R. L. Miller, J. Perlwitz, I. V. Geogdzhayev , P. Ginoux, D. Koch, K. E. Kohfeld, I. Tegen, and C. S. Zender, (2006), Constraining the magnitude of the global dust cycle by minimizing the difference between a model and observations. *J. Geophys. Res.*, 111, D06207, doi:10.1029/2005JD005791.
94. Delworth T. L., A. Rosati, R. J. Stouffer, K. W. Dixon, J. Dunne, K. Findell, P. Ginoux, A. Gnanadesikan, C. T. Gordon, S. M. Griffies, R. Gudgel, M. J. Harrison, I. M. Held, R. S. Hemler, L. W. Horowitz, S. A. Klein, T. R. Knutson, S-J. Lin, P. C. D. Milly, V. Ramaswamy, M. D. Schwarzkopf, J. J. Sirutis, W. F. Stern, M. J. Spelman, M. Winton, A. T. Wittenberg, B. Wyman, et al., (2006), GFDL's CM2 Global Coupled Climate Models. Part I: Formulation and simulation characteristics. *Journal of Climate*, 19(5), 643-674.
95. Dentener F., S. Kinne, T. Bond, O. Boucher, J. Cofala, S. Generoso, P. Ginoux, S. Gong, J. J. Hoelzemann, A. Ito, L. Marelli, J. E. Penner, J.-P. Putaud, C. Textor, M. Schulz, G. R. van der Werf, J. Wilson , (2006), Emissions of primary aerosol and precursor gases in the years 2000 and 1750, prescribed data-sets for AeroCom. *Atmos. Chemistry and Physics*, 6, 2703-2763.
96. Ginoux P., L. W. Horowitz, V. Ramaswamy, I. V. Geogdzhayev, B. N. Holben, G. Stenchikov, and X. Tie, (2006), Evaluation of Aerosol Distribution and Optical Depth in the GFDL Coupled Model CM2.1 for Present Climate, *J. Geophys. Res.*, 111, D22210, doi:10.1029/2005JD006707.
97. Kinne S., M. Schulz, C. Textor, S. Guibert, Y. Balkanski, S. E. Bauer, P. Ginoux, M. Herzog, and L. Horowitz, et al., (2006), An AeroCom initial assessment - optical properties in aerosol component modules of global models. *Atmos. Chemistry and Physics*, 6, 1815-1834.
98. Miller R. L., R. V. Cakmur, J. Perlwitz, I. V. Geogdzhayev, P. Ginoux, D. Koch, K. E. Kohfeld, C. Prigent, R. Ruedy, G. A. Schmidt, and I. Tegen, (2006), Mineral dust aerosols in the NASA Goddard Institute for Space Sciences ModelE atmospheric general circulation model, *J. Geophys. Res.*, 111, D06208, 10.1029/2005JD005796.
99. Textor C., M. Schulz, S. Guibert, S. Kinne, Y. Balkanski, S. Bauer, T. Berglen, P. Ginoux, and L. Horowitz, et al., (2006), Analysis and quantification of the diversities of aerosol life cycles within AeroCom. *Atmos. Chemistry and Physics*, 6, 1777-1813.
100. Washington R., M. C. Todd, G. Lizcano, I. Tegen, C. Flamant, I. Koren, P. Ginoux, s. Engelstaedter, C. S. Bristow, C. S. Zender, A. S. Goudie, A. Warren, and J. M. Prospero, (2006), Links between topography, wind, deflation, lakes and dust: The case of the Bodélé Depression, Chad. *Geophysical Research Letters*, 33, L09401, doi:10.1029/2006GL025827.
101. Kaufman Y. J., I. Koren, L. A. Remer, D. Tanré, P. Ginoux, and S. Fan, (2005), Dust transport and deposition observed from the Terra-Moderate Resolution Imaging Spectroradiometer (MODIS) spacecraft over the Atlantic Ocean, *J. Geophys. Res.*, 110, D10S12, doi:10.1029/2003JD004436.
102. Kinne S., M. Schulz, C. Textor, S. Guibert, Y. Balkanski, S. E. Bauer, T. Berntsen, T. F. Berglen, O. Boucher, M. Chin, W. Collins, F. Dentener, T. Diehl, R. Easter, J. Feichter, D. Fillmore, S. Ghan, P. Ginoux, S. Gong, A. Grini, J. Hendricks, M. Herzog, L. Horowitz, I. Isaksen, T. Iversen, A. Kirkevåg, S. Kloster, D. Koch, J. E. Kristjansson, M. Krol, A. Lauer, J. F. Lamarque, G. Lesins, X. Liu, U. Lohmann, V. Montanaro, G. Myhre, J. Penner, G. Pitari, S. Reddy, Ø. Seland, P. Stier, T. Takemura, X. Tie, (2005), An AeroCom initial assessment - optical properties in aerosol component modules of global models, *Atmos. Chemistry and Physics*, 5, 8285-8330.
103. Lamarque J.-F., J. T. Kiehl, P. G. Hess, W. D. Collins, L. K. Emmons, P. Ginoux, C. Luo, and X. X. Tie, (2005), Response of a coupled chemistry-climate model to changes in aerosol emissions: Global impact on the hydrological cycle and the tropospheric burdens of OH, ozone, and NOx . *Geophys. Res. Letters*, 32, L16809, doi: 10.1029/2005GL023419.
104. Ming Y., V. Ramaswamy, P. A. Ginoux, and L. H. Horowitz, 2005, Direct radiative forcing of anthropogenic organic aerosol, *J. Geophys. Res.*, 110, D20208, doi:10.1029/2004JD005573.
105. Ming Y., V. Ramaswamy, P. A. Ginoux, L. W. Horowitz, and L. M. Russell, (2005), Geophysical Fluid Dynamics Laboratory general circulation model investigation of the indirect radiative effects of anthropogenic sulfate aerosol, *J. Geophys. Res.*, 110, D22206, doi:10.1029/2005JD006161.

106. Textor C., M. Schulz, S. Guibert, S. Kinne, Y. Balkanski, S. Bauer, T. Berntsen, T. Berglen, O. Boucher, M. Chin, F. Dentener, T. Diehl, R. Easter, H. Feichter, D. Fillmore, S. Ghan, P. Ginoux, S. Gong, A. Grini, J. Hendricks, L. Horowitz, P. Huang, I. Isaksen, T. Iversen, S. Kloster, D. Koch, A. Kirkevåg, J. E. Kristjansson, M. Krol, A. Lauer, J. F. Lamarque, X. Liu, V. Montanaro, G. Myhre, J. Penner, G. Pitari, S. Reddy, Ø. Seland, P. Stier, T. Takemura, and X. Tie, (2005), Analysis and quantification of the diversities of aerosol life cycles within AeroCom. *Atmos. Chemistry and Physics*, 5, 8331-8420.
107. Tie X., S. Madronich, S. Walters, D. P. Edwards, P. Ginoux, N. Mahowald, R-Y. Zhang, C. Lou, and G. Brasseur, (2005), Assessment of the global impact of aerosols on tropospheric oxidants. *J. Geophys. Res.*, 110, D03204, doi:10.1029/2004JD005359.
108. Barnum B. H., N. S. Winstead, J. Wesely, A. Hakola, P. R. Colarco, O. B. Toon, P. Ginoux, G. Brooks, L. Hasselbarth, and B. Toth, (2004), Forecasting dust storms using the CARMA-dust model and MM5 weather data, *Environmental Modelling and Software*, 19(2), 129-140.
109. Chin M., A. Chu, R. Levy, L. Remer, Y. Kaufman, B. Holben, T. Eck, P. Ginoux, and Q. Gao, (2004), Aerosol distribution in the Northern Hemisphere during ACE-Asia: Results from global model, satellite observations, and Sun photometer measurements, *J. Geophys. Res.*, 109, D23S90, doi:10.1029/2004JD004829.
110. Ginoux P., J. M. Prospero, O. Torres, and M. Chin, (2004), Long-term simulation of global dust distribution with the GOCART model: Correlation with North Atlantic Oscillation, *Environmental Modelling and Software*, 19(2), 113-128.
111. Ansmann A., J. Bösenberg, and P. Ginoux, et al., (2003), Long-range transport of Saharan dust to northern Europe: The 11-16 October 2001 outbreak observed with EARLINET, *J. Geophys. Res.*, 108(D24), 4783, doi: 10.1029/2003/JD003757.
112. Chin M., P. Ginoux, R. Lucchesi, B. Huebert, R. Weber, T. Anderson, S. Masonis, B. Blomquist, A. Bandy, D. Thornton, (2003): A global aerosol model forecast for the ACE-Asia field experiment. *Journal of Geophysical Research*, 108(D23), 8654, doi:10.1029/2003JD003642.
113. Erickson D. J., J. L. Hernandez, P. Ginoux, W. W. Gregg, C. McClain, J. Christian, (2003), Atmospheric iron delivery and surface ocean biological activity in the Southern Ocean and Patagonian region. *Geophysical Research Letters*, 30(12), 1609, doi:10.1029/2003GL017241.
114. Ginoux P., (2003), Effects of nonsphericity on mineral dust modeling, *J. Geophys. Res.*, 108(D2), 4052, doi:10.1029/2002JD002516.
115. Ginoux P., and O. Torres, (2003), Empirical TOMS index for dust aerosol: Applications to model validation and source characterization, *J. Geophys. Res.*, 108(D17), 4534, doi:10.1029/2003JD003470.
116. Gregg W. W., M. E. Conkright, P. Ginoux, J. E. O'Reilly, N. W. Casey, (2003), Ocean primary production and climate: Global decadal changes, *Geophys. Res. Letters*, 30(15), 1809, doi:10.1029/2003GL016889.
117. Gregg W. W., P. Ginoux, P. S. Schopf, and N. W. Casey, (2003), Phytoplankton and iron: validation of a global three-dimensional ocean biogeochemical model. *Deep-Sea Research II*, 50, 3143-3169.
118. Grousset F. E., P. Ginoux, A. Bory, and P. E. Biscaye, (2003), Case study of a Chinese dust plume reaching the French Alps, *Geophys. Res. Letters*, 30(6), 1277, doi:10.1029/2002GL016833.
119. Kinne S., U. Lohmann, and P. Ginoux, et al., 2003, Monthly averages of aerosol properties: a global comparison among models, satellite data, and AERONET ground data, *J. Geophys. Res.*, 108(D20), 4634, doi:10.1029/2001JD001253.
120. Martin R. V. , D. J. Jacob, R. M. Yantosca, M. Chin, and P. Ginoux, (2003), Global and regional decreases in tropospheric oxidants from photochemical effects of aerosols, *J. Geophys. Res.*, 108(D3), 4097, doi: 10.1029/2002JD002622.
121. Weaver C. J., J. Joiner, and P. Ginoux, (2003), Mineral aerosol contamination of TIROS Operational Vertical Sounder (TOVS) temperature and moisture retrievals, *J. Geophys. Res.*, 108(D8), 4246, doi:10.1029/2002JD002571.
122. Chin M., P. Ginoux, S. Kinne, O. Torres, B. N. Holben, B. N. Duncan, R. V. Martin, J. A. Logan, A. Higurashi, and T. Nakajima, (2002), Tropospheric aerosol optical thickness from the GOCART model and comparisons with satellite and Sun photometer measurements, *J. Atmos. Sciences*, 59(3), 461-483.



123. Martin, R V., A. M Fiore, and P. Ginoux, et al., (2002), Interpretation of TOMS observations of tropical tropospheric ozone with a global model and in situ observations, *J. Geophys. Res.*, 107(D18), 4351, doi:10.1029/2001JD001480.
124. Penner J. E., S. Y. Zhang, M. Chin, C. C. Chuang, J. Feichter, Y. Feng, I. V. Geogdzhayev, P. Ginoux, M. Herzog, A. Higurashi, D. Koch, C. Land, U. Lohmann, M. Mishchenko, T. Nakajima, G. Pitari, B. Soden, I. Tegen, and L. Stowe, (2002), A comparison of model- and satellite-derived aerosol optical depth and reflectivity, *J. Atmos. Sciences*, 59(3), 441-460.
125. Prospero J. M., P. Ginoux, O. Torres, S. E. Nicholson, and T. E. Gill, (2002), Environmental characterization of global sources of atmospheric soil dust identified with the NIMBUS 7 Total Ozone Mapping Spectrometer (TOMS) absorbing aerosol product, *Rev. Geophys.*, 40(1), 1002, doi:10.1029/2000RG000095.
126. Torres O., P. K. Bhartia, J. R. Herman, A. Sinyuk, P. Ginoux, and B. Holben, (2002), A long-term record of aerosol optical depth from TOMS observations and comparison to AERONET measurements. *Journal of the Atmospheric Sciences*, 59(3), 398-413.
127. Weaver C. J., P. Ginoux, N. C. Hsu, M-D Chou, and J. Joiner, 2002, Radiative forcing of Saharan dust: GOCART model simulations compared with ERBE data, *J. Atmos. Sciences*, 59(3), 736-747.
128. Ginoux P., M. Chin, I. Tegen, J. M. Prospero, B. Holben, O. Dubovik, and S-J. Lin, (2001), Sources and distributions of dust aerosols simulated with the GOCART model, *J. Geophys. Res.*, 106 (D17), 20,255-20,273.
129. Greenberg J. P., A. Guenther, S. Madronich, W. Baugh, P. Ginoux, A. Druilhet, R. Delmas, and C. Delon, (1999), Biogenic VOC emissions in Central Africa during EXPRESSO biomass burning season, *J. Geophys. Res.*, 104, 30,365-30671.
130. Delmas et al., Experiment for Regional Sources and Sinks of Oxidants (EXPRESSO): An overview, *J. Geophys. Res.*, 104, 30,609-30,624, 1999.
131. Hauglustaine D., A. S. Madronich, B. A. Ridley, S. J. Flocke, C. A. Cantrell, F. L. Eisele, R. E. Shetter, D. J. Tanner, P. Ginoux, and E. L. Atlas, (1999), Photochemistry and budget of ozone during the Mauna Loa Observatory Photochemistry Experiment (MLOPEX 2), *J. Geophys. Res.*, 104, 20,275-30,307.

### 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](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](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

- 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 NNGPS: 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 NNGPS: 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  
France: French National Research Agency  
Germany: Deutsche Forschungsgemeinschaft  
Hong Kong: Research Grants Council  
Israel: National Science Foundation  
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 Atmospherique (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, 8<sup>th</sup> International workshop on Dust, Lisbon, Portugal, 2015-2016  
GEWEX committee on Aerosols, 2008-2015  
Organizing committee member, 8<sup>th</sup> 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 Fransisco, 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), 8<sup>th</sup> 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**

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 (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-present  
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