

# CURRICULUM VITAE

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## I. PERSONAL

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

98 S Main Street  
Cranbury, NJ 08512  
USA

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

Visiting Research Collaborator  
Atmopsheric&Ocean Sciences (AOS), and  
Civil Environmental Engineering (CEE)  
Princeton University  
Princeton, NJ-08544

## 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):** ISI Web of Science (12/2016): h-index=41, citations=9673

1. 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](https://doi.org/10.1002/2016GL071016).
2. Pu, B. and Ginoux, P. (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.
3. 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](https://doi.org/10.1002/2015JD023134).
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. Fiore, et al., Global air quality and climate, *Chem. Soc. Rev.*, *41*, 6663–6683, doi: 10.1039/C2CS35095E.
13. 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.
14. 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.
15. 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.
16. 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.

17. 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.
18. 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
19. 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.
20. 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.
21. 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.
22. Li, F., P. Ginoux, V. Ramaswamy, 2010, Transport of Patagonian dust to Antarctica, *J. Geophys. Res.*, D18217, doi:10.1029/2009JD012356.
23. 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.
24. 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.
25. 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.
26. 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.
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28. 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.
29. 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.
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31. 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.
32. 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.
33. 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.
34. 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.
35. 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.
36. 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.
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  38. 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..
  39. 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.
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  41. 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.
  42. 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.
  43. 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.
  44. 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.
  45. 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.
  46. 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.
  47. 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.
  48. 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.
  49. 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.

50. 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.
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54. 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.
55. 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.
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61. 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.
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64. 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.
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### **Book Chapters**

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

### **Assessment Reports**

1. Report of the Intergovernmental Panel on Climate Change (IPCC), Chapter 5. Aerosols, their direct and indirect effects, Cambridge University Press, 2001.

2. 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

- 2016-2019: NASA NRA NNH15ZDA001N-HMA: Quantifying the role of dust on precipitation, snow, and runoff in high mountain Asia: PI: S. Kapnick, Co-I: P. Ginoux
- 2015-2018: NASA NRA NNH14ZDA001-ACMAP: Detection and attribution of dust sources to understand dust effects on climate and air quality, PI: P. Ginoux
- 2015-2016: NOAA R20 NGGPS: Implementation and testing of regional and global dust forecasting, PI: P. Ginoux
- 2013-2016: NASA NRA NNH12ZD001N-MAP: Contribution to radiative forcing and climate by anthropogenic sources of soil dust aerosols, PI: R. Miller, 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, 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, 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, Co-I: P. Ginoux

### Professional and Honorary Organizations

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

### Awards

- 2014, 2015, 2016 Highly Cited Researcher (Thomson Reuters)
- 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, Geophysical Research Letters, IEEE JSTARS, IEEE TGRS, Journal of Advances in Modeling Earth Systems, 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, Monthly Weather Review, Nature, Proceedings of the National Academy of Sciences, Quarterly Journal of the Royal Meteorological Society, Remote Sensing of Environment, Tellus, Weather Forecasting



**Research proposals:** USA: DOE, NASA, NOAA, NSF  
Austria: Austrian Science Fund  
Binational (Israel-US) Science Foundation  
Canada: National Research Council  
France: French National Research Agency  
Hong Kong: Research Grants Council  
Israel: National Science Foundation  
Saudi Arabia: King Fahd University  
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:**

NOAA Government monitor of aerosol modeling, 2015-present  
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 report on Aerosols 2008-present  
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**

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, 2015), Conference on Airborne dust, climate change, and human health (University of Miami, FL, 2015), Fall AGU (San Francisco, 2014), University of Nebraska-Lincoln (NE, 2014), Columbia University (NY, 2014), AEROCOM-XII workshop (Hamburg, Germany, 2013), Goldschmidt conference (keynote address, Florence, Italy, 2013), Loughborough University (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 (NY, 2013), Fall AGU (San Francisco, 2012), Workshop on Dust, Climate and Health in Sub-Saharan Africa (Columbia University, NY, 2012), Fall AGU (San Francisco, 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 (CT, 2005), NASA GISS (NY, 2005), GEIA Workshop on emission of atmospheric tracers (Paris, France, 2005), Columbia University (NY, 2004), US-India State departments initiative on climate research (New Delhi, 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**

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 (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

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:

Bing Pu (AOS, Princeton University): 2015-present  
Stuart Evans (AOS, Princeton University): 2015 - present  
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