

## George A. Pouliot, Physical Scientist, in EPA's National Exposure Research Laboratory

Computational Exposure Division

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**Area of Expertise:** George Pouliot has expertise in estimation of Emission Inputs used in Chemical Transport Modeling with a focus on those sources that depend on meteorological variables such as plume rise for wildfires and prescribed burning, biogenic emissions, mobile source, residential wood combustion emissions.

### Select Publications:

Janssens-Maenhout, G., M. Crippa, D. Guizzardi, F. Dentener, M. Muntean, G. Pouliot, T. Keating, Q. Zhang, J. Kurokawa, and R. Wankmüller (2015), HTAP\_v2: a mosaic of regional and global emission gridmaps for 2008 and 2010 to study hemispheric transport of air pollution, *Atmospheric Chemistry and Physics Discussions*, 15(8), 12867-12909.

Jathar, S. H., T. D. Gordon, C. J. Hennigan, H. O. T. Pye, G. Pouliot, P. J. Adams, N. M. Donahue, and A. L. Robinson (2014), Unspeciated organic emissions from combustion sources and their influence on the secondary organic aerosol budget in the United States, *Proceedings of the National Academy of Sciences of the United States of America*, 111(29), 10473-10478, doi:10.1073/pnas.1323740111.

Pouliot, G., H. A. D. van der Gon, J. Kuenen, J. Zhang, M. D. Moran, and P. A. Makar (2014), Analysis of the emission inventories and model-ready emission datasets of Europe and North America for phase 2 of the AQMEII project, *Atmospheric Environment*.

Xing, J., J. Pleim, R. Mathur, G. Pouliot, C. Hogrefe, C. M. Gan, and C. Wei (2013), Historical gaseous and primary aerosol emissions in the United States from 1990 to 2010, *Atmos. Chem. Phys.*, 13(15), 7531-7549, doi:10.5194/acp-13-7531-2013.

Pouliot, G., E. Wisner, D. Mobley, and W. Hunt (2012), Quantification of emission factor uncertainty, *Journal of the Air & Waste Management Association*, 62(3), 287-298, doi:10.1080/10473289.2011.649155.

View more research publications by [George Pouliot](#).

### Education:

- B.A. Mathematics and Computing & Information Science, Saint Vincent College, Latrobe PA, 1992
- Atmospheric Science, North Carolina State University, 1995
- Atmospheric Science, North Carolina State University, 2000

## Professional Experience:

### Honors and Awards:

#### **2015, STAA Level 3 Award for co-author of papers:**

- Erdakos, G. B., P. V. Bhave, G. A. Pouliot, H. Simon, and R. Mathur (2014), Predicting the Effects of Nanoscale Cerium Additives in Diesel Fuel on Regional-Scale Air Quality, *Environmental science & technology*, 48(21), 12775-12782.
- Wong, D., J. Pleim, R. Mathur, F. Binkowski, T. Otte, R. Gilliam, G. Pouliot, A. Xiu, J. Young, and D. Kang (2012), WRF-CMAQ two-way coupled system with aerosol feedback: software development and preliminary results, *Geosci. Model Dev.*, 5, 299-312, doi: 10.5194.
- 2012, STAA Level 3 Award Ref, A., P. V. Bhave, H. Simon, T. G. Pace, G. A. Pouliot, J. D. Mobley, and M. Houyoux (2009), Emissions Inventory of PM<sub>2.5</sub> Trace Elements across the United States, *Environmental Science & Technology*, 43(15), 5790-5796.
- 2011, STAA Level 2 Award for Carlton, A. G., R. W. Pinder, P. V. Bhave, and G. A. Pouliot (2010), To What Extent Can Biogenic SOA be Controlled?, *Environmental Science & Technology*, 44(9), 3376-3380, doi:10.1021/es903506b.
- 2011, *NERL Special Achievement Award For promoting an international exchange of ideas and advancing air quality modeling research under the auspices of AQMEII*
- 2011, *AMAD Blue Ribbon Paper Award, co-author of paper entitled "To What Extent Can Biogenic SOA be Controlled?"*
- 2010, *AMAD Blue Ribbon Paper Award, co-author of paper entitle "Emissions Inventory of PM<sub>2.5</sub> Trace Elements across the United States."*
- 2010, *EPA Bronze Medal Organic Aerosol Science Team "For successful integration of experimental atmospheric research into a predictive modeling tool that improves key Agency-levels decisions"*
- 2010, *Exceptional/Outstanding ORD Technical Assistance to the Regions or Program Offices, Fairbanks Modeling Team "For innovative and outstanding technical support addressing the wintertime problem with fine particle concentrations in Fairbanks, Alaska"*
- 2009, *Exceptional/Outstanding ORD Technical Assistance to the Regions or Program Offices, CMAQ Model Team*
- 2009, *EPA Gold Medal Air Quality Forecasting Team*
- 2008, *Exceptional/Outstanding ORD Technical Assistance to the Regions or Program Offices, National Fire Emissions Inventory Team*