

Christopher G. Nolte, Physical Scientist, in EPA's National Exposure Research Laboratory

Systems Exposure Division

[Mailing Address](#)

nolte.chris@epa.gov

Areas of Expertise: Christopher Nolte has expertise in regional climate modeling, air quality modeling, interactions between climate change, air quality, and human health.

Select Publications:

Seltzer KM, Nolte CG, Spero TL, Appel KW, Xing J (2016), Evaluation of surface ozone and particulate matter in air quality simulations driven by dynamically downscaled historical meteorological fields, *Atmos. Environ.*, 138, 42-54, doi:10.1016/j.atmosenv.2016.05.010.

Nolte CG, Appel KW, Kelly JT, Bhave PV, Fahey KM, Collett Jr JL, Zhang L, Young JO (2015), Evaluation of the Community Multiscale Air Quality (CMAQ) model 5.0 against size-resolved measurements of inorganic particle composition across sites in North America, *Geosci. Model Dev.*, 8, 2877-2892, doi:10.5194/gmd-8-2877-2015.

Fann N, Nolte CG, Dolwick P, Spero TL, Curry Brown A, Phillips S, Anenberg S (2015), The geographic distribution and economic value of climate change-related ozone health impacts in the United States in 2030, *J. Air Waste Manage. Assoc.*, 65, 570-580.

Mallard MS, Nolte CG, Bullock OR, Spero TL, Gula J (2014), Using a coupled lake model with WRF for dynamical downscaling, *J. Geophys. Res. Atmos.*, 119, 7193-7208, doi:10.1002/2014JD021785.

Mallard MS, Nolte CG, Spero TL, Bullock OR, Alapaty K, Herwehe J, Gula J, Bowden JH (2015), Technical challenges and solutions in representing lakes when using WRF in downscaling applications, *Geosci. Model Dev.*, 8, 1085-1096, doi:10.5194/gmd-8-1085-2015.

Otte TL, Nolte CG, Otte MJ, Bowden JH (2012), Does nudging squelch the extremes in regional climate modeling? *J. Climate*, 25, 7046-7066, doi:10.1175/JCLI-D-12-00048.1.

Nolte CG, Gilliland AB, Hogrefe C, Mickley LJ (2008), Linking global to regional models to assess future climate impacts on surface ozone levels in the United States, *J. Geophys. Res.*, 113, D14307, doi:10.1029/2007JD008497.

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Education:

- B.S., Physics, Stanford University, 1991
- M.S., Environmental Engineering Science, California Institute of Technology, 1994
- Ph.D., Environmental Engineering Science, California Institute of Technology, 2001

Professional Experience:

- Physical Scientist, U.S. Environmental Protection Agency, Research Triangle Park, NC, 2008 – Present
- Physical Scientist, National Oceanic and Atmospheric Administration, Research Triangle Park, NC, 2005 – 2008
- Postdoctoral Fellow, U.S. Environmental Protection Agency, Research Triangle Park, NC, 2003 – 2005

Awards and Honors:

- U.S. EPA Science and Technical Achievement Award (2013, 2011)
- U.S. EPA Gold Medal (2009)
- U.S. EPA Bronze Medal (2016, 2013, 2011, 2010)
- Atmospheric Modeling and Analysis Division Leadership Award (2011)
- U.S. EPA Exceptional/Outstanding ORD Technical Assistance to the Regions or Program Offices (2009)
- U.S. EPA NERL Special Achievement Award (2009, 2007)
- NOAA Special Achievement Award (2006)
- Phi Beta Kappa (1991)