

## **Christopher D. Knightes, Environmental Engineer, in EPA's National Exposure Research Laboratory**

Computational Exposure Division

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**Area of Expertise:** By addressing environmental fate and transport modeling to emphasize physical, chemical and biological processes, I research impacts of management strategies (e.g., remedial strategies, emission regulations) and elucidate new research directions for processes governing human and ecological exposure concentrations. I have focused on the biogeochemical cycling of mercury in watersheds and surface waters, with the goal of linking mercury sources to receptor exposures in aquatic ecosystems. Additionally, I have worked with pesticides and the chemistry of complex, multi-component mixtures, such as polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs).

### **Select Publications:**

Johnston, JohnM AND Chris Knightes. Engineered Nanomaterial Fate and Transport Modeling Strategy. Presented at Center for Environmental Implications of Nanotechnology (CEIN) Workshop, Los Angeles, CA, March 19 - 20, 2015.

Gabriel, M., Chris Knightes, E. Cooter, AND R. Dennis. Evaluating relative sensitivity of SWAT-simulated nitrogen discharge to projected climate and land cover changes for two watersheds in North Carolina, USA. Hydrological Processes. John Wiley & Sons, Ltd., Indianapolis, IN, online, (2015).

Scudder Eikenberry, B., K. Riva-Murray, C. D. KNIGHTES, C. Journey, L. Chasar, M. Brigham, AND P. Bradley. Optimizing fish sampling for fish-mercury bioaccumulation factors. CHEMOSPHERE. Elsevier Science Ltd, New York, NY, 135:467-473, (2015).

View more research publications by [Christopher Knightes](#).

### **Education:**

- Ph.D. in Civil and Environmental Engineering, Princeton University, 2000,
- M.A. in Civil Engineering and Operations Research, Princeton University, 1997
- M.S. in Civil Engineering, Northwestern University, 1995
- B.S. in Physics, University of Rochester, 1992

### **Professional Experience:**

- Environmental Engineer, USEPA, ORD, NERL-ERD, Athens, GA, 2002-present

- Adjunct Assistant Professor, Drexel University, School of Environmental Science, Engineering and Public Policy, 2002.
- Associate Engineer, ENVIRON International, Princeton, NJ, 2001 – 2002