

Shujiang Kang

Postdoctoral Research Associate
Oak Ridge National Laboratory
Phone: (865)-574-5948
Email: kangs@ornl.gov

Education and Training

2006 Pennsylvania State University, Soil Science, PhD
2002 West Texas A&M University, Soil and Environmental Science, MS
1995 Agricultural University of Hebei, Crop Science, MS
1992 Agricultural University of Hebei, Crop Science, BS

Research and Professional Experience

2010-Present Postdoc Research Associate. Oak Ridge National Laboratory. High performance computing modeling of marginal land-use assessment and management for food and bioenergy production.
2008-2009 Research Associate. United States Department of Agriculture (USDA)-Agricultural Research Service. Modeling and predicting long-term organic matter changes in agricultural soils under different managements, Renewable Energy Assessment Project (REAP), USDA-ARS & USDOE Greenhouse gas emission (CO₂ & N_xO) in various farming systems, Greenhouse Gas Emission Through Agricultural Carbon Enhancement Network (GRACnet), USDA-ARS.
2007-2008 Postdoctoral Research Fellow. USDA-Natural Resources Conservation Service (NRCS). Development of soil environmental quality assessment tool for soil conservation and management based on SMAF, supported by CEAP, USDA-NRCS. Coupled soil and water quality assessment, monitoring, and modeling of multiple farming systems in a Coastal Plain watershed, Center of Environmental Farming Systems (CEFS), North Carolina State University.
2002-2006 Research Assistant. Pennsylvania State University. Investigation of spatial and temporal variability of soil and water quality across scales in agricultural watersheds. Modeled and predicted transport pathways and amount of major NPS pollutants using numerical, process-based, and artificial intelligent models.

Publications

1. Gollany, H., S. Kang. 2010. Predicting Agricultural Management Influence on Long-term Soil Organic Carbon Dynamics in North America. *Agronomy Journal (In-review)*.
2. Kang, S., S.S. Andrews, J.P. Mueller. 2010. Toward soil quality for multiple soil functions and diverse needs. *Journal of Soil and Water Conservation (In-review)*.
3. Karlen, D.L., B.J. Wienhold, S. Kang, and T.M. Zobeck. 2009. Indices for soil management decisions. *In* T.J. Sauer and J.L. Hatfield (eds.) *Soil Management: Building a Stable Base for Agriculture*, American Society of Agronomy Series, Section 1: Framing the problem.
4. Kang, S., and H.S. Lin. 2009. General soil-landscape distribution patterns in buffer zones of different order streams. *Geoderma 151:233-240*.
5. Kang, S., W.A. Payne, S.R. Evett, C.A. Robinson and B.A. Stewart. 2009. Simulation of winter wheat evapotranspiration in Texas and China using three models of differing complexity. *Agricultural Water Management 96:167-178*.
6. Kang, S., H.S. Lin, W.J. Gburek, G.J. Folmar, and Birl Lowery. 2008. Baseflow nitrate in relation to stream order and agricultural land use. *Journal of Environmental Quality 37:808-816*.
7. Kang, S., and H.S. Lin. 2007. Wavelet analysis of hydrological and water quality signals in an agricultural watershed. *Journal of Hydrology 338:1-14*.

Synergistic Activities

1. Member, American Society of Agronomy

2. Member, Soil Society of America
3. Member, American Geophysical Union.