

Applied Research

- NASA Carbon Cycle Research: (2000-2004)
 - “Development and Validation of an Improved Urban Air Quality Modeling Using High Resolution Remote Sensing Data”
 - In collaboration with NASA, GRTA, Cool communities, etc
 - Investigated through modeling the Urban Heat Island mitigation strategies on air quality
- HELIX-Atlanta (2004)
 - In collaboration with CDC we are participating in the development of the Environmental Public Health Tracking Network (EPHTN)
 - Proving link-based mobile source and emission data
 - Exposure assessment

Applied Research

- Air Quality Modeling and Health (on-going):
 - “High Resolution Atmospheric Modeling for Public Health Research”
 - Partners: Georgia Tech and EPA-ORD
 - Year-round modeling at high resolution
 - Yearly update of EI (e.g., development of Fire Emissions Tracking System)
 - Rigorous model performance evaluation
 - Incorporation of new modeling system (WRF and MOVES)
 - Evaluation of new modeling techniques
 - Air Quality Model Results Database (AQMRD)

Applied Research

- Urban Modeling (2006-2007):
 - “Morphological Database and Web Portal Access for Advanced Urban Dispersion Modeling”
 - EPA/NOAA, NERL, USDHS, U.S. Army, NCAR, University of Utah
 - Develop Urban Canopy Parameters (UCP) using airborne LiDAR (Light Detecting and Ranging) data from the NGA databases, and conduct atmospheric modeling over highly urbanized areas