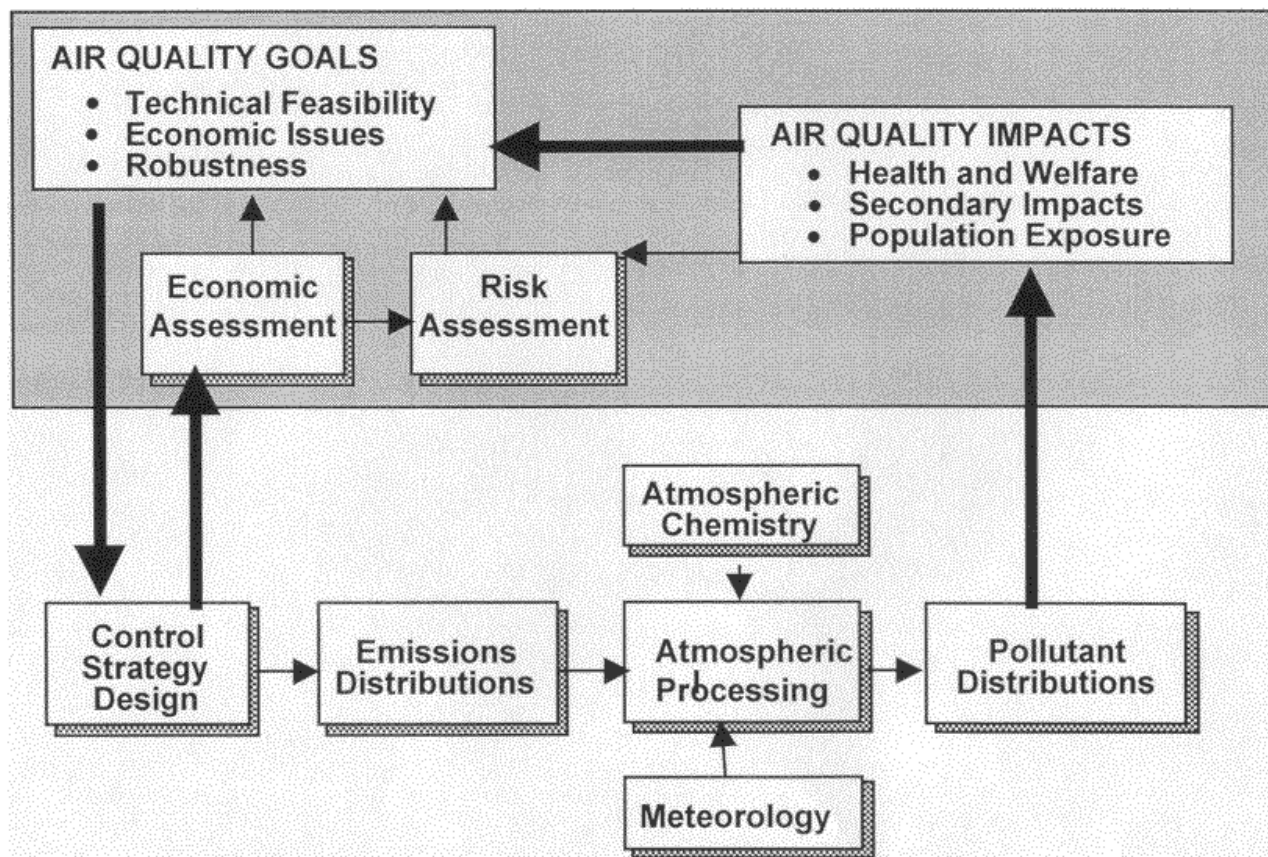


FAQS Atmospheric Modeling

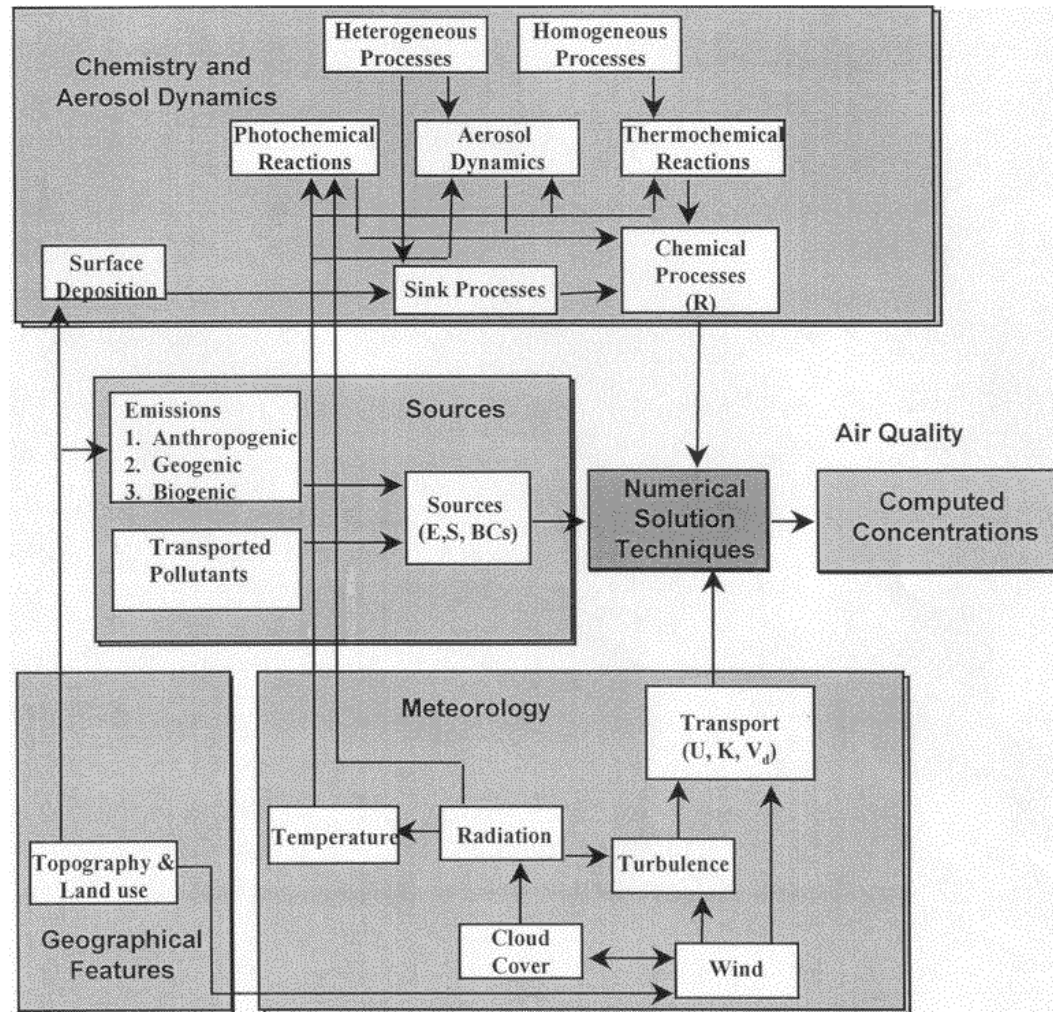
GIT Air Quality Modeling Team

Air Quality Management





Air Quality Model



FAQS Modeling Objective

- Develop regional understanding factors impacting air quality in Fall-line cities
 - Characterize transport of ozone, particulate matter and their precursors
 - Establish source-air quality relationships
 - Provide foundation for air quality management and planning
 - Tools and data
- Put point measurements in regional context

Components

- Emissions inventory development and emissions modeling
- Meteorological modeling
 - Model evaluation
- Air quality modeling
 - Model evaluation
- Source air-quality assessment

Activities: Year 1

- Emissions inventory development
 - Future year
- Definition of modeling domain
 - Targeted at Fall line cities
- Initial air quality modeling
 - What can we learn so far
- Issue identification for experimental investigation
- Initial analysis of observations and air quality model results

Emissions Modeling Activities

- Grow existing regional inventory
- Work with EPD and cities to identify currently available emissions inventories
 - Compare with regional inventory
- Contact industries to get more episodically-detailed emissions estimates for measurement periods
- Work with military bases to improve their inventories

Activities: Years 2 and 3

- Meteorological modeling
 - Correspond to measurement periods
 - Necessary delay (NCEP data needs)
- Emissions modeling
 - Uses meteorological fields
- Air quality modeling and evaluation
- Area-of-influence determination