Data-driven Modeling of Influence of Meteorology on Ozone and PM
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Previous studies for CCOS Domain and Bay Area:
- Quality assurance for surface meteorological data
- Intra-basin cluster analysis of surface wind fields
  - Synoptic climatology and atmospheric transitions triggering episodes
  - Identify and characterize key mesoscale flows affecting source-receptor relationships
  - Assess relative air pollution potential for various meteorological scenarios
- Inter-basin meteorological analysis
  - Coherence of meteorology and air quality throughout Central Valley

Possible collaborations and projects can include:
- Surface meteorology data quality assurance
  - Monitoring network design
  - Validate 2010 measurements against previous databases
  - Online quality assurance (early failure detection)
- Intra- and Inter- basin meteorological analyses
  - Selection of IOPs during field study
  - Representativeness of meteorology for simulation studies
- Exploratory data analysis after field study
  - Advance conceptual model for CA-wide air quality
  - Model performance evaluation
  - Source apportionment by receptor modeling