



# Forecasting Sub-city Scale Air Quality by Combining Models with Observations



- Poor air quality is a major and growing public health concern worldwide.
- Local stakeholders need accurate estimates and forecasts of air quality.
- We propose a simple yet effective method of combining three data sources:
  - Surface Nitrogen Dioxide ( $\text{NO}_2$ ) concentration forecasts from the NASA Global Earth Observing System Composition Forecast (GEOS-CF) model
  - Satellite retrievals from ESA's TROPospheric Monitoring Instrument (TROPOMI)
  - Monitoring data from the EPA.
- This method outperformed forecasts made using each data source separately

