



# Tools for Analyzing NASA Air Quality Model Output

February 22, 24, & March 1, 2022

10:00-12:00 EST (UTC-5)

This advanced webinar series will build the capacity to apply Python codes and other online tools to read, map, and analyze datasets from NASA Goddard Earth Observing System (GEOS) air quality forecasts as well as products from the second Modern-Era Retrospective analysis for Research and Application (MERRA-2) reanalysis. The training will run three sessions, with each session two hours long. The sessions will include lectures and hands-on activities, including exercises, interacting with web-based and offline python tools, and time to perform analyses.

## Part 1: Review of NASA Air Quality Forecasts and Reanalysis

- GEOS FP and GEOS-CF forecasts, and MERRA-2 Reanalysis
- GES DISC tools for visualization and analysis

## Part 2: Introduction to Python Tools for Visualization and Analysis

- Hands-On Exercise: Intercomparison with Satellite Observations
- Hands-On Exercise: Validation with Surface Observations

## Part 3: Interpreting Model Output for Air Quality Assessment

- Case Study Analysis: Instructor-led exercise to combine data and apply tools to assess forecast and analysis performance



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