

[AeroStat: Online Platform for the Statistical Intercomparison of Aerosols](#)

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Submitted by Clynnnes on Fri, 2012-07-06 15:10 **Event:** [Summer Meeting 2012](#) [2]

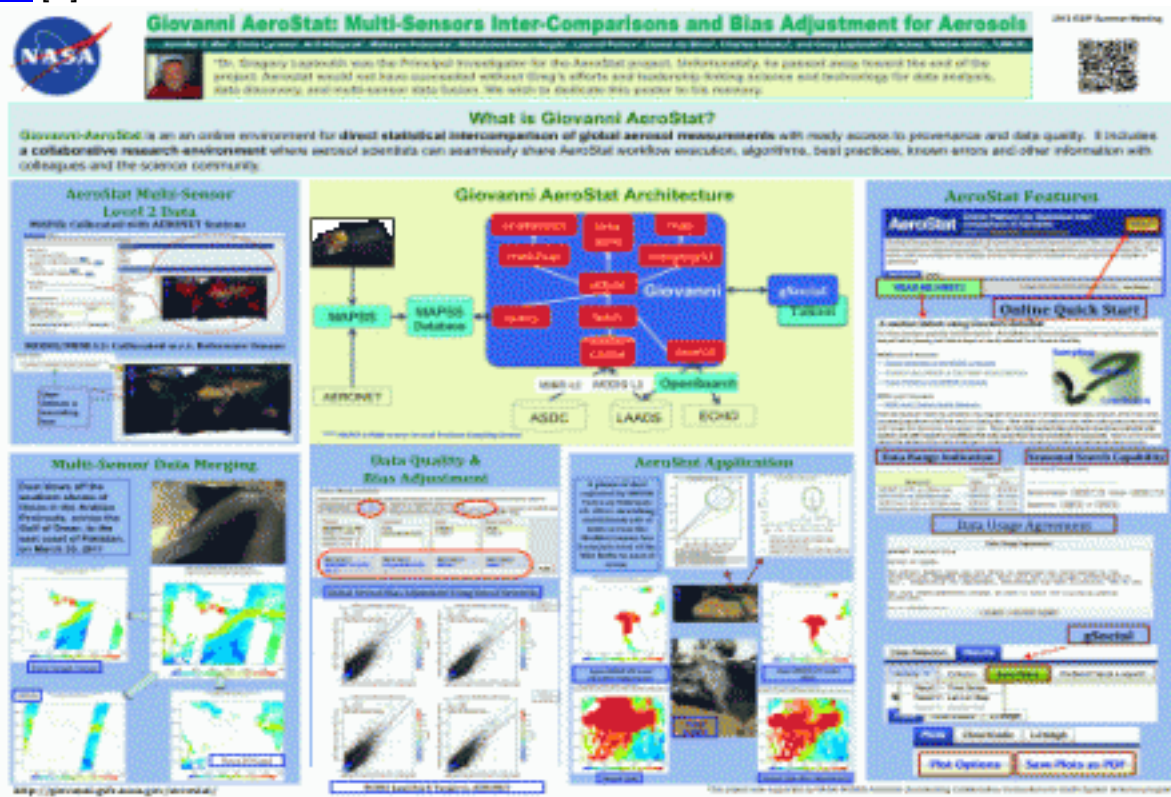
Abstract:

- Several different satellite instruments measure Aerosol Optical Depth, yet they often do not agree with each other, nor with in situ measurements. The AeroStat tool was developed in order to provide a platform for investigating these variations. Built on the Giovanni platform, it supports intercomparisons of aerosol measurements from the Multi-Angle Imaging Spectroradiometer (MISR) and the two Moderate Resolution Imaging Spectroradiometer (MODIS) instruments, as well as ground measurements from the AEROSOL ROBOTIC NETWORK (AERONET). In addition, AeroStat includes an optional neural-network-based statistical adjustment of biases. AeroStat also supports the merging and map display of multiple level 2 (satellite swath) aerosol datasets, with optional bias adjustment. The result is a capability to support intercomparisons and merging at a level not seen before in an online tool.

Collaboration Area: [Air Quality](#) [3]

[Information Quality](#) [4]

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The screenshot displays the 'Giovanni AeroStat: Multi-Sensors Inter-Comparisons and Bias Adjustment for Aerosols' interface. It features a NASA logo, a QR code, and a testimonial from Gregory Sufliotis. The main content is organized into several panels: 'What is Giovanni AeroStat?' (describing the collaborative environment), 'AeroStat Multi-Sensor Level 2 Data' (showing data from MISR, MODIS, and AERONET), 'Giovanni AeroStat Architecture' (a flowchart of data sources and processing), 'AeroStat Features' (listing capabilities like data merging and bias adjustment), 'Multi-Sensor Data Merging' (showing maps of aerosol optical depth), 'Data Quality & Bias Adjustment' (displaying scatter plots), 'AeroStat Application' (showing various maps and data visualizations), and 'Data Usage Agreement' (a form for user registration).

Images:

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Keywords: [aerosols intercomparison](#) [10]

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