

Atmospheric and Environmental Research Lab



AER scientists use satellite remote sensing and numerical models to study atmospheric composition, agriculture, earth systems, and climate change.

AER has access to the University of Iowa's supercomputing facilities provided by Information Technology Services as well as the Informatics Initiative's collaborative space.

Who We Work With

- National Oceanic and Atmospheric Administration
- National Aeronautics and Space Administration
- Naval Research Lab
- National Science Foundation
- Iowa Space Grant Consortium
- U.S. Department of Agriculture
- Various NGOs
- Private Industry Partners

Lab Director: Jun Wang



- Professor of Chemical and Biochemical Engineering, University of Iowa
- James E. Ashton Professor of Engineering, University of Iowa
- Assistant Director, Iowa Technology Institute
- PhD: Atmospheric Sciences, University of Alabama

RESEARCH FOCUS & HIGHLIGHTS

AER is interested in researching the impacts of aerosol pollution on air quality, weather, and climate. The research approaches include satellite remote sensing, meteorology-chemistry coupled modeling, data assimilation, and integration of these elements. Broadly, our work has four categories:

- Satellite/ground remote sensing of atmosphere, fires, and environmental change.
- Observation-based earth system modeling for predicting air quality, weather, and climate.
- Renewable energy and precision agriculture research enabled by the “Internet of Things,” citizen sciences, and big data analytics.
- Interdisciplinary work on environmental sustainability, public health, environmental sensor design, computing and visualization, and geoscience education.

LEARN MORE



SCHEDULE A VISIT

by contacting Jun Wang at jun-wang-1@uiowa.edu or 319-353-4483



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on our website arroma.uiowa.edu and esmc.uiowa.edu

