Welcome

Virtual Workshop on Health Applications for Satellite-Derived Air Quality

Session 4: Roundtable discussion on the future of satellite remote sensing of air quality in health applications

May 18, 2022 | 10:00 AM – 11:30 AM EDT

For the full program, please visit: https://tinyurl.com/HEISatelliteWorkshop.

We welcome you to share your work at https://www.surveymonkey.com/r/3V56PPC.
Before we begin

All attendees are muted (view-only) for the duration of the webinar.

Please submit questions via the Q&A function at any time.

If you experience any logistical difficulties, please contact us using the “Chat” box.

Please share your work on satellites, air quality, and health at https://www.surveymonkey.com/r/3W56PPC.

Webinar slides and video will be posted on the HEI website: https://tinyurl.com/HEISatelliteWorkshop.
The Health Effects Institute

An independent, nonprofit corporation chartered to provide policy-relevant, high-quality, and impartial science

Funded jointly by government and the worldwide motor vehicle industry and, occasionally, private foundations

Funds research that is selected, conducted, overseen, and reviewed independently of HEI’s sponsors

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Professor, Department of Environmental Health, Boston University School of Public Health

**HEI staff work with the Research Committee on:**
- Strategic planning
- Defining research needs in Requests for Applications (RFAs)
- Selecting and overseeing funded studies
Workshop Agenda

Setting the stage for trusted, high-quality satellite remote sensing data of air quality in health applications
Wednesday April 20, 2022, 10:00 AM to 12:00 PM EDT

Global applications of satellite-derived air quality data
Friday April 29, 2022, 9:00 AM to 11:00 AM EDT

Pushing the methodological limits on satellite use in health applications
Thursday May 5, 2022, 1:00 PM to 3:00 PM EDT

Roundtable discussion on the future of satellite remote sensing of air quality in health applications
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Workshop guiding questions

What opportunities do satellite-based products bring for advancing knowledge on air quality and health and what are the challenges?

What is coming in the future from satellite observations and how can they help address these challenges?

How well do we appreciate the limitations of the satellite products and how do we interpret those in the context of health impacts and burden estimates?

How far can we take satellite products?
Session 1: Setting the stage for trusted, high-quality satellite remote sensing data of air quality in health applications

Yang Liu
Emory University

Qian Di
Tsinghua University

Application of satellite-derived air quality estimates for epidemiology studies in data-rich areas

Ana Prados
Battelle

Capacity development opportunities to improve the utilization of satellite remote sensing for health applications and communications

Satellite remote sensing for air quality and health
Representativeness and usefulness of satellite and ground-based data for monitoring air quality

Satellite data for air quality exposure assessment and epidemiology

Examples of application to air quality and health from around the world at various stages of uptake

Aaron van Donkelaar
Washington U. in St. Louis

Yuming Guo
Monash University

Sagnik Dey
IIT – Delhi, India

Laura A. Rodriguez
UIS, Colombia

Rebecca Garland
U. Pretoria, South Africa

Slide from Eloise Marais
Session 3: Pushing the methodological limits on satellite use in health applications

Quantifying and communicating uncertainty in air quality estimates

Dan Goldberg
The Milken Institute School of Public Health at the George Washington University

Interpretation and improvement of air quality data from Geostationary Environment Monitoring Spectrometer (GEMS)

Heesung Chong
Center for Astrophysics, Harvard & Smithsonian

Jhoon Kim
Yonsei University, Korea

Observing nitrogen dioxide air pollution inequality in U.S. cities from space

Sally Pusede
University of Virginia
Session 4: Roundtable discussion on the future of satellite remote sensing of air quality in health applications

Panelists

Dr. Eloise Marais
University College London, UK and HEI Global Health Oversight Committee

Dr. Colette Heald
Massachusetts Institute of Technology, USA

Dr. Tracey Holloway
University of Wisconsin—Madison and leader of NASA HAQAST

Dr. Laura Judd
National Aeronautics and Space Administration (NASA), USA

Dr. Yang Liu
Emory University
Thank you for joining us!

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Session topics Include:

- Risks to population health
- Issues of environmental justice
- Air pollution and climate change
- Cutting-edge research methodologies

https://www.healtheffects.org/annual-conference