



Satellite Remote Sensing of Dust, Fires, Smoke, and Air Quality

July 10-12, 2018

Partners: NASA ARSET, U.S. EPA - Region 10, U.S. Forest Service

Tentative Agenda

Tuesday, July 10

- 8:00 - 8:30 Registration and Logistics
- 8:30 - 9:30 Current and Future Satellite Capabilities for Air Quality Monitoring
Lecture, Discussion
- 9:30 - 10:15 Satellite Imagery Access, Interpretation, and Tools for Dust, Smoke, and Pollution Monitoring
Lecture, Hands-On
- 10:15 - 10:30 Break
- 10:30 - 11:15 Fundamentals of Remote Sensing
Lecture, Discussion
- 11:15 - 12:30 Satellite-Based Fire Products: Methods, Data, Access, and Applications
Lecture, Discussion, Hands-On
- 12:30 - 1:30 Lunch Break
- 1:30 - 2:00 Smoke Monitoring from Space
Lecture
- 2:00 - 3:00 Aerosol Observations from Satellites: Brief Theory & Existing Products
Lecture, Discussion
- 3:00 - 3:15 Break
- 3:15 - 4:15 Near Real-Time Data Access: Images, Figures, and Aerosols
Lecture, Discussion, Hands-On
- 4:15 - 5:00 Remote Sensing of Trace Gases and Products
Lecture, Discussion
- 5:00 Adjourn



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Wednesday, July 11

8:30 - 9:00 Q&A, Review Day 1, Logistics

9:00 - 9:30 Validation and Evaluation of Satellite-Derived AOD
Lecture

09:30 - 10:30 Theoretical Basis for Converting Satellite Observations to Ground-Level $PM_{2.5}$
Concentrations
Lecture, Discussion

10:30 - 10:45 Break

10:45 - 12:30 Conversion of Satellite Aerosol Measurements to $PM_{2.5}$ Air Quality
Lecture, Discussion, Demonstration, Hands-On

12:30 - 1:30 Lunch Break

1:30 - 2:30 Reading and Mapping MODIS Level 2 Aerosol and $PM_{2.5}$ Datasets
Hands-On

2:30 - 4:00 Aerosol Products from Geostationary Satellites
Lecture, Discussion

4:00 - 4:15 Break

4:15 - 5:00 Overview of CALIPSO and CATS
Lecture, Discussion

5:00 - 5:30 Discussion, Q&A, and Review of Day 2

5:30 Adjourn

Thursday, July 12

8:30 - 9:30 Q&A, Review Day 2, Logistics

9:30 - 10:30 TBD
Lecture, Discussion

10:30 - 10:45 Break

10:45 - 12:00 Air Quality Forecasting and MERRA-2 Reanalysis
Lecture, Discussion, Hands-On

12:00 - 12:30 Additional Tools & Resources for Case Studies
Lecture, Demonstration

12:30 - 2:00 Lunch

2:00 - 4:00 Case Study Analysis in Groups
Hands-On

4:00 - 4:15 Break

4:15 - 5:15 Case Study Presentations and Discussion
Participant Presentations, Discussion

5:15 - 5:30 Training Review, Feedback, and Moving Forward
Discussion

5:30 Adjourn