

NASA Earth Science Technology Office

A guide to NASA-funded Earth science tech talks at AMS's annual meeting.

Monday, 13 January 2020

8:30 AM – 10 AM | Room: 251

10th Conference on Transition from Research to Operations

Joint Session 1 – Advances in CubeSats and SmallSats to Improve Earth Science, Weather Forecasting, Space Weather Prediction, Hydrology Studies, or Climate Monitoring – Part I

Cochairs: Martin Yapur, Technology Planning and Integration for Observation, NOAA/NESDIS/Office of Projects, Planning and Analysis, Silver Spring, MD and P. Millar, Earth Science Technology Office, NASA, Greenbelt, MD

8:30 AM – 8:45 AM

J1.1 – RainCube One Year after Completing Its Mission: What We Have Learned and What Lies Ahead

Presenter: Simone Tanelli, JPL/CalTech, Pasadena, CA

8:45 AM – 9 AM

J1.2 – One Year of Operational Overlap of the Compact Spectral Irradiance Monitor (CSIM) with the Total and Spectral Solar Irradiance Sensor (TSIS-1) Spectral Irradiance Monitor (SIM)

Presenter: Erik Richard, Univ. of Colorado, Boulder, CO

9 AM – 9:15 AM

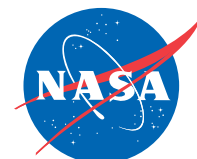
J1.3 – Global Observations from a Science-Quality Millimeter-Wave Atmospheric Sounding Radiometer on a CubeSat to Improve Weather Forecasting: Temporal Experiment for Storms and Tropical Systems Demonstration (TEMPEST-D)

Presenter: S. C. Reising, Colorado State Univ., Fort Collins, CO

9:15 AM – 9:30 AM

J1.4 – The CubeSat Radiometer Radio Frequency Interference Technology (CubeRRT) Validation Mission: Operations and Development of Software Simulation Tools for Future Resource Constrained Observing Systems

Presenter: Chris Ball, Ohio State Univ., Columbus, OH



Monday, 13 January 2020 (cont.)

10:30 AM – 12 PM | Room: 251

**10th Conference on Transition from Research to Operations
Joint Session 1 – Advances in CubeSats and SmallSats to Improve Earth Science,
Weather Forecasting, Space Weather Prediction, Hydrology Studies, or Climate
Monitoring – Part II**

Cochairs: Robert Bauer, NASA Earth Science Technology Office, Greenbelt, MD and
Stephen A. Mango, NOAA/NESDIS/Office of Projects, Planning and Analysis, Silver
Spring, MD

10:30 AM – 10:45 AM

**J4.1 – Enabling Global Observations
of Cloud Ice Particle Size and
Water Vapor Sounding to Improve
Understanding of the Role of Clouds
in Climate and Weather Prediction:
Tropospheric Water and Cloud ICE
(TWICE) 6U CubeSat Instrument**

Presenter: S. C. Reising, Colorado
State Univ., Fort Collins

10:45 AM – 11 AM

**J4.2 – Evolution of the Multi-Angle
Stratospheric Aerosol Radiometer**

Presenter: Matthew G. Kowalewski,
NASA GSFC, Greenbelt, MD

11:30 AM – 11:45 AM

**J4.5 – Update on the Stratospheric
Water Inventory: Tomography of
Convective Hydration (SWITCH)
Project**

Presenter: Nathaniel Livesey, JPL,
Pasadena, CA

11:45 AM – 12 PM

**J4.6 – Computational Reconfigurable
Imaging Spectrometer (CRISP)**

Presenter: Adam Milstein, MIT Lincoln
Laboratory, Lexington, MA

10:30 AM – 12 PM | Room: 259A

**24th Congress on Integrated Observing and Assimilation Systems for the Atmo-
sphere, Oceans, and Land Surface (IOAS-AOLS)**

Session 2: Observing System Simulation Experiments (OSSEs)

11:45 AM – 12 PM

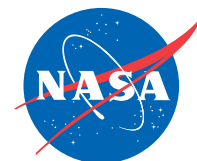
**2.6 – Observing System Simulation
Experiments for Convective Clouds**

Presenter: D. J. Posselt, JPL,
Pasadena, CA

12:15 PM – 1:15 PM | Room 251

**Town Hall: The NASA Earth Science Flight Program - Investments In And Planning
For The Next-Generation Earth Observatories: NASA HQ**

Organizer: Robert Bauer, NASA Earth Science Technology Office, Greenbelt, MD;
Facilitator: Stephen A. Mango, NOAA/NESDIS/Office of Projects, Planning and
Analysis, Silver Spring, MD; Speaker: Charles Webb, NASA HQ/Earth Sciences Division



Monday, 13 January 2020 (cont.)

2 PM – 4 PM | Room 207

22nd Conference on Atmospheric Chemistry

Session 3A: Greenhouse Gases. Part II

10:30 AM – 10:45 AM

3A.1 – Combined Lidar Measurements of Methane, Aerosols, and Planetary Boundary Layer Heights with the NASA High Altitude Lidar Observatory

Presenter: Rory A. Barton-Grimley, NASA Langley Research Center, Hampton, VA

2 PM – 4 PM | Room 207

10th Conference on Transition from Research to Operations

Session 3B: Advances in Satellite Observations, Earth Science, and Observing Technologies That Can Complement the Heritage Observation Systems and Potentially Lead to Advances in Next-Generation Observation Systems

2:30 PM – 2:45 PM | Room 251

3B.3 – Validation of the Vapor In-Cloud Profiling Radar

Presenter: M. Lebsock, JPL/California Institute of Technology, Pasadena, CA
2:45 PM – 3 PM | Room 251

3B.4 – Airborne Lidar Observations of Water Vapor Profiles and Planetary Boundary Layer Heights—Prospects for Future SmallSat Missions

Presenter: Amin R. Nehrir, NASA, Hampton, VA

Tuesday, 14 January 2020

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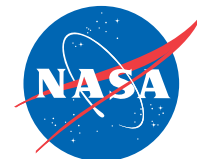
10th Conference on Transition from Research to Operations

5B: Emerging Technologies for Earth or Space Sciences to Address Unmet, Targeted Needs/Requirements in the Research or Operational Communities

11:30 AM – 11:45 AM | Room 251

5B.3 - Initial Results from Airborne Tests of the Compact Midwave Imaging System

Presenter: M. A. Kelly, Applied Physics Laboratory/The Johns Hopkins Univ., Laurel, MD



Tuesday, 14 January 2020 (cont.)

6 PM – 7 PM | Room 153B

Town Hall: NASA Earth Science Division (ESD) Town Hall

Organizer: J. A. Kaye, Earth Science Division, NASA, Science Mission Directorate, Washington, DC; Panelists: Paula Bontempi, Earth Science Division, Science Mission Directorate, NASA, Washington, DC; L. Friedl, NASA Applied Sciences Program and USGEO co-chair agency, Washington, DC and P. Millar, Earth Science Technology Office, NASA, Greenbelt, MD; Speaker: Sandra Alba Cauffman, Acting Earth Science Division Director, Science Mission Directorate, Acting Earth Science Division Director, Science Mission Directorate, NASA, Washington, DC

Thursday, 16 January 2020

8:30 AM – 9:30 AM | Room 252B

Third Conference on Earth Observing SmallSats

Session 1: Operational SmallSats: Current Status and Near-Term Plans

8:30 AM – 8:45 AM | Room 252B

1.1 – Demonstrating the Potential for CubeSat Microwave Radiometers for Weather Observation: TEMPEST-D Performance after 1.5 Years On-Orbit

Presenter: S. T. Brown, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA
