Monday, January 8

Joint Session 5 (8:45-10:00, 615 AB Hilton)
Advances in CubeSats and SmallSats to Improve Earth Science, Weather Forecasting, Space Weather Prediction, Hydrology Studies, or Climate Monitoring, Part I
Co-chairs: Margaret Caulfield and Robert Bauer


• J5.2: High-Resolution Tomography of Upper Tropospheric and Lower Stratospheric Water Vapor with Spaceborne Active Microwave Limb Sounding - Nathaniel Livesey

• J5.3: RainCube, A Ka-band Precipitation Radar in a 6U CubeSat - Shivani Joshi (Peral)

• J5.4: Enabling Global Observations of Clouds and Precipitation at Fine Spatiotemporal Scales from 6U-Class SmallSat Constellations: Temporal Experiment for Storms and Tropical Systems Technology Demonstration (TEMPEST-D) - Steven Reising

• J5.5: Simulation of Temporal Observations by the TEMPEST CubeSat over a Hailstorm in the Dallas–Fort Worth Area - Chandrasekar Radhakrishnan (Reising)

Joint Session 10 (10:30-12:00, 615 AB Hilton)
Advances in CubeSats and SmallSats to Improve Earth Science, Weather Forecasting, Space Weather Prediction, Hydrology Studies, or Climate Monitoring, Part II
Co-chairs: Stephen Mango and Eric Fetzer

• J10.1: The CubeSat Infrared Atmospheric Sounder (CIRAS) Technology Demonstration in Support of a Future Earth Observing Nanosatellite-Infrared (EON-IR) Atmospheric Sounder - Thomas Pagano

• J10.2: Implementation of CubeSat Solar Irradiance Measurements: CSIM Solar Spectral Irradiance Continuity and On-Orbit Validation - Erik Richard

• J10.3: Applications of NASA TROPICS Data for Tropical Cyclone Analysis, Nowcasting, and Impact - Bradley Zavodsky (Blackwell)


• J10.5: Enabling Observations of Ice Cloud Particle Size and Humidity Profiles in the Upper Troposphere/Lower Stratosphere from the Tropospheric Water and Cloud Ice (TWICE) Millimeter and Sub-millimeter Wavelength Radiometer Instrument for 6U-Class Satellites - Steven Reising

Town Hall (12:15-1:15, 615 AB Hilton)
NASA’s Earth Science Flight Program - Investments In And Planning For The Next-Generation Earth Observatories - Eric Ianson

Session 3A (2:00-4:15, 615 AB Hilton)
Advances in Satellite Observations for Earth Science and Observing Technologies, Part I
Co-chairs: Bjorn Lambriigsten and Thomas Pagano

• 3A.1: Doppler Wind Lidar and the OAWL Instrument: Potential Contributions to the Future Global Winds Measurement Enterprise - Sara Tucker

• 3A.2: DopplerScatt Instrument Concept for Simultaneous Measurements of Ocean Surface Vector Winds and Currents - Dragana Perkovic-Martin

• 3A.3: Observing Ice Clouds with Microwave-IR Polarimetric Radiometry: SWIRP Development - Dong Wu

• 3A.4: Compact Midwave Imaging System (CMIS) for Near-Real-Time Cloud Sensing - Michael Kelly

• 3A.6: Enabling Technology Transforms a Prototype GNSS Interferometric Reflectometry (GNSS-IR) System to Global Operation - Angelyn Moore (Kristine Larson)

• 3A.7: G-Band Differential Absorption Radar for Inside-Cloud Boundary Layer Humidity Retrieval - Ken Cooper

Tuesday, January 9

Joint Session 23 (8:30-10:00, 9 AB)
Observing System Concepts
Chair: Carl Schueler

• J23.1: RAVAN CubeSat Results: Technologies and Science Demonstrated on Orbit - William H. Swartz

• J23.3: The CubeSat Radiometer Radio Frequency Interference Technology Validation (CUBERRT) Mission - Sidharth Misra

Joint Session 29 (10:30-12:00, 9 AB)
Enabling Technologies and Their Maturation
Chair: John Pereira

• J29.1: Assessments of CubeSat MicroMas-2 and CIRAS Impacts on NWP through Global OSSE - Narges Shahroudi

Town Hall (12:15-1:15, 19 AB)
NASA’s Earth Science Division Town Hall - Michael Freilich, Jack Kaye, Sandra Cauffman, Lawrence Friedl, Robert Bauer, Eric Ianson, and Patricia Jacobberger-Jellison

Session 7 (1:30-3:45, 615 AB Hilton)
Significant Role of Calibration/Validation for the Transition of Research-to-operations
Co-chairs: Changyong Cao and James G. Yoe

• 7.6: Preliminary Results from the VISAGE Project—Visualization for Integrated Satellite, Airborne, and Ground-Based Data Exploration - Helen Conover

Joint Session 32 (1:30-3:45, 9 AB)
Earth Observing SmallSats: The New Normal
Chair: Philip Ardanuy

• J32.1: The Role of SmallSats and CubeSats for NASA Science (Invited Presentation, Core Science Keynote) - Thomas Zurbuchen

• J32.2: The NASA TROPICS CubeSat Constellation Observatory - William Blackwell

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