AMS 101 | 10-15 January 2021
NASA Earth Science Technology Office (ESTO)
ESTO-Funded and ESTO-Affiliated Presentations, Posters, and Events

Monday, January 11
11th Conference on Transition of Research to Operations

Session 1A (10:00 - 11:00 EST)
Advances in CubeSats and SmallSats to Improve Earth Science, Weather Forecasting, Space Weather Prediction, Hydrology Studies or Climate Monitoring
– Cochairs: Martin Yapur and Robert Bauer

J1A.1 (10:10 EST) : *A CubeSat Mission Providing Global Atmospheric Science Observations for More Than Two Years: Temporal Experiment for Storms and Tropical Systems - Demonstration (TEMPEST-D) Mission* – Steven C. Reising

J1A.3 (10:20 EST) : *An Affordable Micro-Satellite Constellation of Infrared Spectral Sounders to Meet Future Atmospheric Vertical of Temperature, Water Vapor, and Wind Fields with Rapid Refresh* – Kevin R Maschhoff

J1A.6 (10:35 EST) : *NACHOS: A CubeSat-Based High-Resolution Hyperspectral Imager for Atmospheric Trace Gas Monitoring* – Kirk Post

Session 3A (15:30 - 16:30 EST)
Advances in Sea Ice Science and Applications for Operational Ice Services: Part II; Emerging Technologies for Earth or Space Sciences to Address Unmet, Targeted Needs; and Requirements in the Research or Operational Communities – Cochairs: Michael Lowe and Jonathan Edwards-Opperman

3A.5 (16:00 EST) : *Coupling AI to Aerosol Model Parameterizations for Inferring Boundary Layer Heights* – Milt Halem

3A.7 (16:10 EST) : *Novel Observing Strategies and Analysis Frameworks for Targeted Research Requirements* – Jacqueline Le Moigne

3A.9 (16:20 EST) : *Airborne Test Campaign of the Compact Midwave Imaging System* – Michael Kelly

3A.10 (16:25 EST) : *Future Remote Sensing of Ice Clouds with Compact Submm-Wave and IR Imagers: SWIRP and CTI* – Dong L. Wu

Wednesday, January 13
11th Conference on Transition of Research to Operations

Session 8 (13:00 - 14:00 EST)
Advances in Satellite Observations, Earth Science & Observing Technologies that can complement the Heritage Observation Systems and potentially lead to Advances in Next Generation Observation Systems & Public-Private Partnerships; Best Practices & Multi-Community Efforts for the Transition of R2O in the Weather, Water and Climate Enterprises – Cochairs: Eric J. Fetzer, Stephen A. Mango, Jennifer Bosch Webster, and John J. Pereira

8.3 (13:20 EST) : *Computational Reconfigurable Imaging Spectrometer (CRISP)* – Adam Milstein

8.6 (13:35 EST) : *A Deep Multi-Stacked Neural Network Approach for Improved Planetary Boundary Layer Height Estimation* – Jennifer Sleeman

Fourth Conference on Earth Observing SmallSats

Session 8 (13:00 - 14:00 EST)
Operational SmallSat Architectures, Missions, and Concepts: Current Status and Near-Term Plans
– Cochairs: Philip E. Ardanuy and Robert Bauer

8.7 (13:40 EST) : *CHAPS: A New Compact Instrument for Air Pollution Remote Sensing* – Bill Swartz

24th Conference on Satellite Meteorology, Oceanography & Climatology

Session 8 (13:00-14:00 EST)
Weather Forecasting Applications Including Improved Satellite Data Assimilation – Cochairs: Mitch Goldberg and Kenneth Holmlund

8.6 (13:35 EST) *TEMPEST-based CubeSat Microwave Sounder Constellations to Enhance Temporal Resolution of Temperature and Moisture Profiling* – Steven C. Reising

11th Symposium on Lidar Atmospheric Applications

Poster 688 (14:00 - 15:30 EST) *An Overview of the NASA ADM-Aeolus Cal/Val Test Flight Campaign* – Kristopher Bedka

23rd Conference on Atmospheric Chemistry

Session 9B (15:30 - 16:30 EST)
Data-Driven Prediction of Air Quality Events due to Wildfires, Dust Storms, and Volcanic Eruptions. Part II: Machine Learning Applications for Atmospheric Chemistry – Cochairs: Daniel Tong, Georg Grell, Johannes Fleming, Ivanka Stajner, Shobha Kondragunta, Melinda Marquis, Chrisoph A. Keller, Sam Silva, and Julie M. Nicely

9B.8 (16:15 EST) : *Surrogate Models for the Gas-Phase Chemistry within GEOS-Chem for Use in 4D-Var Data Assimilation* – William G. Tsui

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