

2019 Annual NOAA/NESDIS CoRP Science Symposium

August 27 - 29, 2019

University of Maryland, College Park



AGENDA



Day One – August 27, 2019		
Session 1	#	Earth System Studies Chair: Jason Apke, CIRA
2:00 - 2:20	1	Fernando Miralles-Wilhelm & Hugo Berbery Welcome and Introduction to CISESS
2:20 - 2:40	2	Arun Ravindranath Quantifying Streamflow Regime Behavior and Its Sensitivity to Demand
2:40 - 3:00	3	Irene Feng How Many People Are Killed by Dust Storms in the U.S.? A Myth of Two Tales
3:00 - 3:20	4	Eli Dennis Simulating Regional Climate: What is the Role of Soil Texture?
3:20 - 3:40		Break

Session 2	#	Satellite Science (LEO) Chair: Katherine Lukens, CISESS
3:40 - 4:00	5	Mitch Goldberg Improving Applications and User Services through the Satellite Proving Grounds
4:00 - 4:20	6	Jeremy Solbrig Assessing the Stability of Surface Lights for use in Retrievals of Nocturnal Atmospheric Parameters
4:20 - 4:40	7	Jun Zhou A Study of Two-Dimensional Lunar Scan for Advanced Technology Microwave Sounder Geometric Calibration
4:40 - 5:00	8	Jingjing Peng Evaluation of Level 3 Daily Gridded VIIRS Global Albedo Products
5:00 - 5:20	9	Steven Buckner Seasonal Comparisons of Ozone Profile Measurements Between OMPS-LP and SAGE III-ISS
End of first day sessions		

Day Two – August 28, 2019		
7:30 - 9:00		CI Directors Meeting with NOAA Leadership

Session 3	#	Satellite Science (GEO) Chair: Michael Goodliff, CIRA
9:00 - 9:20	10	Chris Kummerov Introduction to CIRA
9:20 - 9:40	11	Chris Slocum Leveraging GOES-R to Improve Short-Term Tropical Cyclogenesis Forecasts
9:40 - 10:00	12	Daile Zhang Inter-Comparison of Space- and Ground-Based Observations of Lightning
10:00 - 10:20	13	Jason Apke Development and Applications of Dense Optical Flow for Next Generation Satellite Imagery
10:20 - 10:40		Break

Session 4	#	Earth System Studies/Applied Science Chair: Li Fang, CISESS
10:40 - 11:00	14	Tristan L'Ecuyer Introduction to CIMSS
11:00 - 11:20	15	Equisha Glenn The Role of Convection on the Decreasing Caribbean Precipitation During a Regional, Warming Sea-Surface Temperature Period, 1982-2017
11:20 - 11:40	16	Ysabel Banon Heat Stress and Bleaching in Coral Reef Communities during Recent Caribbean Bleaching Events

11:40 - 12:00	17	Junyu Qi	Integrating NOAA Climate and Remote Sensing Data with the SWAT Modeling Framework to Assess Water Quality in the Upper Mississippi River Basin
12:00 - 12:20	18	Kriti Bhargava	Using Analysis Increments to Estimate and Correct Model Systematic Errors
12:20 - 12:40	19	Shakila Merchant	Introduction to CREST
12:40 - 1:20		Lunch	

Session 5			
1:20 - 3:20			Poster Session (posters 1-14)
1:20 - 3:20			Visualization Lab Open House
3:20 - 5:20			Poster Session (posters 15-29)
End of second day sessions			

Day Three – August 29, 2019			
Session 6	#		Satellite Science (R2O) Chair: Veljko Petkovic, CISESS
9:00 - 9:20	19	Ralph Ferraro	Research at NOAA STAR's Satellite Climate Studies Branch
9:20 - 9:40	20	Callyn Bloch	Near-Real-Time Surface-Based CAPE from Merged Hyperspectral IR Satellite Sounder and Surface Meteorological Station Data
9:40 - 10:00	21	John Xun Yang	Comparing Atmospheric Water Vapor Profiles between Reanalysis and Satellite for 183 GHz Calibration
10:00 - 10:20	22	Tianning Su	Using Machine Learning Algorithm to Build Relationships between Spectral Surface Reflectances for Aerosol Optical Depth Retrieval over Land from Satellites
10:20 - 10:40		Break	

Session 7	#		Earth System Studies/Applied Science Chair: Daile Zhang, CISESS
10:40 - 11:00	23	Margaret Bruckner	Noncoincident Validation of Ozone Mapping Profiler Suite Limb Retrievals using the Real-time Air Quality Modeling System Aura Reanalysis.
11:00 - 11:20	24	Guangyang Fang	Seasonal Predictability of Tropical Atlantic Variability
11:20 - 11:40	25	Youtong Zheng	Satellite-based Estimation of Cloud-top Radiative Cooling Rate for Marine Stratocumulus
11:40 - 12:00	26	Yuhan Rao	Integrating Long Term Satellite Data and <i>In Situ</i> Observations to Study Snow-Albedo-Temperature Feedback over the Tibetan Plateau
12:15 - 1:15		Lunch	

			Your Future
1:15 - 2:30		Shakila Merchant, Facilitator	Degree to Career (Panel Discussion) TBD
2:30 - 3:00			Awards: Best Student Speaker (1st, 2nd, 3rd Place) and Best Student Poster (1st, 2nd, 3rd Place)
3:00			Symposium Ends

Poster Session I		
1	Jessica Maier	Comparison of Satellite, Model, and Radiosonde Derived Convective Available Potential Energy (CAPE) in the Southern Great Plains Region
2	Michael Goodliff	Detection of non-Gaussian Signals using Machine Learning
3	Jifu Yin	An Inter-comparison of Noah Model Skills with Benefits of Assimilating SMOPS Blended and Individual Soil Moisture Retrievals
4	Deirdre Dolan	Possible Sting Jet Development in Hurricanes Michael and Leslie (2018) Post Extratropical Transition
5	Allison Ring	Volcanic Ash Forecast Verification using HYSPLIT and Satellite Ash Observations Identified by VOLCAT
6	Clairisse Reiher	Improving Wildfire Plume Dispersion Modeling with MISR-Retrieved Injection Heights
7	Brandon Bush	Investigating the Relationship Between Advanced Microwave Scanning Radiometer 2 (AMSR2) and Advanced Technology Microwave Sounder (ATMS) Measurements with Severe Weather Reports
8	Jackson Hill	Gauge and Satellite Data Comparison Programming
9	David Melecio-Vazquez	Towards Improving the Representation of Urban Processes in the HRRR Model
10	Adrian Pena	Development of a High Resolution Precipitation and Temperature Product for New York City
11	Engela Sthapit	CREST-Snow Field Experiment: Improvement and Assimilation of Snow Product into the National Water Model
12	Joshua Hrisko	Urban Air Temperature Model Using GOES-16 LST and a Diurnal Regressive Neural Network Algorithm
13	Siena Dante	HF Radar and Near-Shore Buoy Ocean Wave Measurement
14	Marvin Li	Ensemble Machine Learning Algorithms for Satellite Remote Sensing of Water Quality in Coastal Waters
Poster Session II		
15	Naufal Razin	An Open Inter-Calibrated Microwave Database for Tropical Cyclone Research
16	Jun Dong	New Calibration and Validation of the ATMS Snowfall Rate Product
17	Ellen Buckley	Algorithm Development for Classification of Melt Ponds on Sea Ice in High-resolution Imagery
18	Kelton Halbert	The Effects of Turbulence Closure on Streamwise Vorticity in a Simulated Supercell Thunderstorm
19	Veljko Petkovic	Mitigating PMW Satellite Precipitation Biases: Convective Class Detection
20	Natalie Memarsadeghi	Continental-Scale Flood Mapping of the Mississippi River Basin with the Consideration of National Levees
21	Matthew Nicholson	Investigating Decreased Geostationary Lightning Mapper Detection Efficiency in Areas of Deep Moist Convection
22	Nicolas Maxfield	Assessing the Relationship between the Standardized Precipitation Evapotranspiration Index, Watershed Characteristics, and Hydrological Drought Conditions in Northern California
23	Guadalupe Ortega	GOES-16 Level 2 Land Surface Temperatures - Filling for Cloud Masked Data
24	Ehsan Najafi	Climate drives variability and joint variability of global crop yields
25	Suhey Ortiz-Rosa	Water quality anomalies after severe weather events in southwestern Puerto Rico
26	Erin Wengerter	The Socioeconomic Effect of Hurricane Events in New York City
27	Justinas Kilpys	Application of Random Forest Algorithm to Detect Snowfall from ATMS Measurements