



PSU-UMD DA Workshop

June 26, 2017, Monday

7:45 - Morning Goodies

8:30 - 8:40 Opening Remarks

8:40 - 10:20 Session 1

Eugenia	Kalmany	UMD
Michael	Ying	PSU
Thomas	Lauvaux	PSU
Kayo	Ide	UMD

Chair: Kayo Ide

New Applications to Data Assimilation
On the Selection of Localization Radius in Ensemble Filtering for Multi-Scale Quasi-Geostrophic Dynamics
Data Assimilation for Regional Carbon Cycles
Blance Operators and Variable Localization as Multi-element Ensemble Data Assimilation

10:20 - 10:40 Break

10:40 - 12:20 Session 2

Eun-Gyeong (Claire) Yang	PSU
Matthew Westpetal	UMD
Steven Greybush	PSU
Seth Salso	PSU

Chair: David Stensrud

Development and Evaluation of a Regional Reanalysis over East Asia
Generating Climatological Forecast Error Covariance for 3D-Var with Ensemble Perturbations: Comparison with the "NMC method"
Evaluating Predictability of High-Impact Weather using Convective-Allowing Ensemble Forecasts: Winter Snowstorms and Spring Thunderstorms
Lake-Effect Snow: Evaluating Forecasts of Intense Wintertime Convection From a Regional Ensemble Data Assimilation System

12:20 - 12:30 Brief Discussion

12:30 - 13:30 Lunch

13:30 - 15:10 Session 3

David Parrish	NOAA/ EMC
Wan-shu Wu	NOAA/ EMC
David Stensrud	PSU
Yunji Zhang	PSU

Chair: Steven Greybush

Ideas for Alleviating GSI Computer Limitations
Regional 4D-EnVar with Global Ensemble at NCEP
Analysis of Environmental Modifications by Deep Convection During MPEX
EnKF Assimilation of Synthetic ABI Infrared Radiance Observations at Storm Scales with Vertical Localization

15:10 - 15:30 Break

15:30 - 17:10 Session 4

Robert Nystrom	PSU
Lei Zhu	PSU
David Groff	UMD/ NOAA
Tse-Chun Chen	UMD

Chair: Brian Hunt

Understanding and Improving the Predictability of Tropical Cyclones Through Ensemble-Based Data Assimilation
GOES-13 All-Sky Infrared Radiance Impacts on Hurricane Joaquin (2015) Prediction with PSU-EnKF
Application of EFSO Calculations Towards Targeted Aircraft Thinning Configurations
Proactive Quality Control to Improve NWP, Reanalysis, and Observations

17:10 - 17:30 Brief Discussion

Evening BBQ Party

June 27, 2017, Tuesday

7:45 - Morning Goodies

8:25 - 8:30 Opening Remarks for Day 2

8:30 - 10:10 Session 5

Brian	Hunt	UMD
Yuan	Xue	UMD

Barton	Forman	UMD
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Frank	Lagor	UMD
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Chair: James Carton

Reservoir Computing

Using a Support Vector Machine and Satellite-Based Passive Microwave Brightness Temperature Observations Within a Land Data Assimilation System to Improve Snow Characterization in North America

Towards the Development of a Global, Satellite-based, Terrestrial Snow Mission Planning Tool

DMD-Based Estimation of the Flow Field Behind a Thin Airfoil at High Angles of Attack

10:10 - 10:30 Break

10:30 - 12:10 Session 6

James	Carton	UMD
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Travis	Sluka	UMD
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Hart	Gillespie	PSU
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Yun	Liu	UMD
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Tyrus	Berry	PSU/ GMU
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Chair: Eugenia Kalnay

An Incremental Approach to Fixing Surface Fluxes

Strongly Coupled Ocean-Atmosphere Data Assimilation

Ensemble Data Assimilation for a Mars Atmosphere and Aerosol Reanalysis

An On-Line Ensemble Coupled Data Assimilation System

Correcting Biased Observation Model Error in Data Assimilation

12:10 - 13:10 Lunch

13:10 - 14:30 Session 7

Kristen	Bathmann	NOAA/ EMC
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Scott	Sieron	PSU
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Fuqing	Zhang	PSU
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Chair: Fuqing Zhang

Assimilating Infrared Sounder Observations with Correlated Error

Coupling WRF Microphysics Parameterizations to Community Radiative Transfer Model Simulations of Microwave Frequencies, sTowards Data Assimilation for TCs

Overview of Data Assimilation Research at PSU

14:30 - Final Discussion

Adjourn



Center for Scientific Computation
And Mathematical Modeling
University of Maryland College Park

Weather & Chaos
A NUMERICAL WEATHER FORECASTING AND APPLIED DYNAMICS PROJECT