

# HiPC 2015 WORKSHOP 3: InfoSymbiotics/Dynamic Data Driven Applications Systems (DDDAS) for Smarter Systems

12/16/2015

9:00 AM – 9:15 AM

Welcome and Introductions

9:15 AM – 10:15 AM

Keynote Talk: Large-Scale Dynamic data and Large-Scale Big Computing for Smart Systems

**Dr. Frederica Darema (Air Force Office of Scientific Research, USA)**

10:15 AM – 10:45 AM

Break

10:45 AM – 1:00 PM

Technical Presentations (Abstracts)

*An Efficient Parallel Implementation of the Ensemble Kalman Filter Based on Shrinkage Covariance Matrix Estimation*

Elias D. Nino-Ruiz and Adrian Sandu (Virginia Tech, USA)

*Stochastic Dynamics Modeling and Reduction for Predicting Phenomena Behavior in a Dynamic, Data-Driven Application System*

Isaac J. Sledge and Kamran Mohseni (University of Florida)

*A DDDAS CO Monitoring System: An Experimental Exploration*

Matthew Silic and Kamran Mohseni (University of Florida, USA)

*Distributed DDDAS through Receding Horizon Control*

Vijay Gupta, Gregory Madey and Christian Poellabauer (University of Notre Dame, USA)

*High Performance Processing of Streaming Data*

Supun Kamburugamuve, Milinda Pathirage, Saliya Ekanayake and Geoffrey C. Fox (Indiana University, USA)

*Design and Evolution of Cyber Physical Systems: A Dynamic Data Driven Application System*

Sandeep Neema, Ted Bapty, and Jason Scott (Vanderbilt University, USA)

*A dynamic data-driven approach to closed-loop neuroprosthetics based on multiscale biomimetic brain models*

Salvador Dura-Bernal, Samuel A Neymotin, and William W Lytton (SUNY Downstate Medical Center, Brooklyn, USA); Amit Majumdar and Subhashini Sivagnanam (University of California San Diego, USA)