

# CFP: Workshops on Dynamic Data Driven Applications Systems (DDDAS)

In conjunction with:  
*22<sup>nd</sup> International Conference on High  
Performance Computing (HiPC)  
December 16, 2015, Bengaluru, India*



22<sup>nd</sup> IEEE INTERNATIONAL CONFERENCE ON  
HIGH PERFORMANCE COMPUTING (HiPC 2015)  
December 16-19, 2015  
Bengaluru (Bangalore) | www.hipc.org



## Overview

The Dynamic Data Driven Applications Systems (DDDAS/Infosymbiotics) paradigm provides a powerful methodology and platform for Big Data and Big Computing in the vast ecosystem of ubiquitous data acquisition and processing devices ranging from sensors to exascale systems. Managing and efficiently exploiting massive-scale instrumentation of distributed assets, heterogeneity of data sources, model-driven in-network processing of large volumes of heterogeneous and high velocity data, predictive analytics, and superior situational awareness and other smart systems, benefit from applying DDDAS-based feedback-driven dynamic adaptation in fundamental attributes such as real-timeliness, reliability, security and privacy.

The DDDAS/Infosymbiotics paradigm is ideal to address the needs of such systems as well as emerging IoT (Internet of Things) environments because it intrinsically provides a bi-directional symbiotic feedback loop dynamically integrating multi modal data and multi-level system modeling, for data analytics and multi-level system actuation, to adaptively and intelligently steer and manage an application system and exploit more effectively system instrumentation resources.

## Workshops

Two back-to-back half day workshops on complementary but synergistic topics: **DDDAS/Infosymbiotics Applications** and **DDDAS/Infosymbiotics Software and Infrastructure** will be held on Wednesday, 16 December 2015. They will include interactive and discussion-based participation by attendees. We invite **extended abstracts** from researchers and practitioners from both academia and industry representing different areas that bring forward new ideas and applications and/or propose alternate approaches grounded in DDDAS/Infosymbiotics to solve a variety of problems.

## Submission and Important Dates

One-page extended abstracts on applications, approaches, infrastructure and software related to DDDAS/Infosymbiotics should be emailed to: [dddas.hipc.2015@gmail.com](mailto:dddas.hipc.2015@gmail.com) with the subject "DDDAS HiPC Submission" indicating the Applications track or the Software track. Selected abstracts will be invited to submit full papers after the workshop for a special issue of [Cluster Computing](#) journal.

*Submission deadline: 6pm EDT, Friday, 24 July 2015*

*Notification of Acceptance: Monday, 24 August 2015*

*Workshops: Wednesday, 16 December 2015*

## Workshop Organizers

- (1) Aniruddha Gokhale, Vanderbilt University
- (2) Salim Hariri, University of Arizona
- (3) Adrian Sandu, Virginia Tech
- (4) Vaidy Sunderam, Emory University