



Call for Papers

The International Workshop on Data-Intensive Scalable Computing Systems (DISCS)

<http://ft.ornl.gov/discs-2013/>

November 18, 2013, Colorado Convention Center, Denver, CO, USA

Held in conjunction with SC13: The International Conference for High Performance Computing, Networking, Storage and Analysis

Scope of the Workshop: Existing high performance computing (HPC) systems are designed primarily for workloads requiring high rates of computation. However, the widening performance gap between processors and storage, and trends toward higher data intensity in scientific and engineering applications, suggest there is a need to rethink HPC system architectures, programming models, runtime systems, and tools with a focus on data intensive computing. The Second International Workshop on Data Intensive Scalable Computing Systems (DISCS) provides a forum for researchers and other interested people in the areas of data intensive computing and high performance parallel computing to exchange ideas and discuss approaches for addressing the challenges facing Big Data or data intensive computing at large scale.

Keynote: Dr. Lucy Nowell will deliver the keynote address for DISCS-2013. Dr. Nowell is program manager for Data and Visualization within the Advanced Scientific Computing Research program, Office of Science, U.S. Department of Energy.

Important Dates:

Paper Submission:	August 16, 2013
Author Notification:	October 4, 2013
Camera-Ready Paper Submission:	October 15, 2013
Workshop Date:	November 18, 2013

Topics of Interest: The topics of interest for the DISCS-2013 workshop include, but are not limited to:

- HPC system architectures for data intensive applications
 - Data-centric system architectures
 - I/O systems and architectures
 - System area networks
 - Power efficient systems
- Programming models supporting data intensive applications
 - Data-centric programming models
 - MPI extensions for data intensive applications
 - GAS/PGAS programming model extensions for data intensive applications
 - Non-traditional programming languages/methodologies
 - Other programming models for data intensive applications
- Runtime systems supporting data intensive applications
 - Communication systems for supporting data intensive applications
 - Data compression and de-duplication
 - Caching and prefetching
 - Reliability and fault tolerance
 - Data integrity and consistency
- Productivity tools supporting data intensive applications
 - Data analytic tools
 - Tracing and trace analysis tools
 - Data mining and knowledge discovery tools
 - Computational, mathematical and statistical techniques
 - Data and tools supporting such techniques
 - Data visualization techniques and tools supporting such techniques

Submission Instructions: Submissions should be unpublished work. Submissions should be in PDF format on US Letter sized paper (8.5"x11") with not more than 6 pages (all inclusive) formatted according to the double-column format of the ACM SIG Proceedings "Option 1: LaTeX2e - Strict Adherence to SIGS style" template. Margins and fonts should not be modified from this style. All accepted papers will appear in the workshop proceedings in the ACM Digital Library.

See <http://ft.ornl.gov/discs-2013/?q=submissions> for details about submissions, a link to the ACM formatting template, and a link to the EasyChair web site for submitting papers.

Journal Special Issue: The authors of papers accepted to the DISCS-2013 workshop will be invited to submit manuscripts for a special issue of the journal *Parallel Computing: Systems & Applications*, guest edited by the DISCS-2013 workshop chairs. The manuscripts submitted to the journal will be reviewed and selected based on the journal's acceptance criteria. The target submission deadline for the journal papers is January 18, 2014.

Organizers: The following people are organizing DISCS-2013:

Steering Committee

- William D. Gropp, *University of Illinois at Urbana-Champaign*
- Xian-He Sun, *Illinois Institute of Technology*
- Rajeev Thakur, *Argonne National Laboratory*

Program Chairs

- Yong Chen, *Texas Tech University*
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- Carlos Maltzahn, *University of California at Santa Cruz*
- Fabrizio Petrini, *IBM*
- Ioan Raicu, *Illinois Institute of Technology*
- Zhiqi Tao, *Intel*
- Abhinav Vishnu, *Pacific Northwest National Laboratory*
- Weijun Xiao, *Virginia Commonwealth University*
- Weikuan Yu, *Auburn University*