Welcome!

- Forum for researchers and developers to discuss recent results and future challenges of data intensive applications on traditional HPC systems and latest data-centric computing systems
- DISCS-2015 is fourth in a series
- Has been held in conjunction with SC since 2012
Selecting our Program

• Accepted 9 out of 15 submissions
• All submissions received at least three reviews
• Online discussion among program committee to discuss submissions and reviewer ratings
• Accepted papers distributed into three sessions
Morning Program

• Opening remarks, 8:45-9:00

• Keynote Address, 9:00-10:00
  *Data Intensive Research Infrastructure to Advance Scientific Discovery*
  Irene Qualters, National Science Foundation

• Morning Break, 10:00-10:30

• Session 1: New Paradigms for Data-Intensive Processing
  • Session chair: Weikuan Yu
  • 10:30-11:00: *SJM: an SCM-based journaling Mechanism with Write Reduction for File Systems*
  • 11:00-11:30: *Efficient Disk-to-Disk Sorting: A Case Study in the Decoupled Execution Paradigm*
  • 11:30-12:00: *A Low-cost Adaptive Data Separation Method for the Flash Translation Layer of Solid State Drives*
  • 12:00-12:30: *Big Data Analytics on Traditional HPC Infrastructure Using Two-Level Storage*

• Lunch Break, 12:30-2:00
Afternoon Program

• Session 2: Parallel I/O Acceleration
  • Session chair: Michael Kluge
  • 2:00-2:30: Route-aware Independent MPI I/O on the Blue Gene/Q
  • 2:30-3:00: Experimental Evaluation of a Flexible I/O Architecture for Accelerating Workflow Engines in Cloud Environments
• Afternoon Break, 3:00-3:30

• Session 3: Analytics Frameworks
  • Session chair: Sarp Oral
  • 3:30-4:00: A Case Study of MapReduce Speculation for Failure Recovery
  • 4:00-4:30: Supporting Online Analytics with User-Defined Estimation and Early Termination in a MapReduce-Like Framework
  • 4:30-5:00: Performance Evaluation and Tuning of BioPig for Genomic Analysis
• Closing remarks, 5:00-5:15
Instructions to Presenters

- 25 minute presentations, 5 minute question and answer period
- Please check in with your session chair at least 5 minutes before the session starts
- Please send your slides to discs2015@easychair.org by 11/18 for posting to the workshop web site
Journal Special Issue

- Special issue of Parallel Computing: Systems & Applications
- Authors of accepted papers are encouraged to submit extended versions of their workshop paper
- Instructions will be sent out by mid-December 2015
- Target submission deadline early Spring 2016
Organizers

• Steering Committee
  • Yong Chen (chair), Texas Tech University
  • William D. Gropp, University of Illinois at Urbana-Champaign
  • Xian-He Sun, Illinois Institute of Technology
  • Rajeev Thakur, Argonne National Laboratory

• General Chair
  • Philip C. Roth, Oak Ridge National Laboratory

• Program Committee Chairs
  • Weikuan Yu, Florida State University
  • Shane Canon, Lawrence Berkeley National Laboratory

• Proceedings Chair
  • Michael Kluge, TU-Dresden

• Publicity Chair
  • Jianhui Yue, Auburn University
Program Committee

- Michael J. Brim, Oak Ridge National Laboratory
- Suren Byna, Lawrence Berkeley National Laboratory
- Pietro Cicotti, San Diego Supercomputer Center
- Shuibing He, Illinois Institute of Technology
- Hyun-Wook Jin, Konkuk University
- Mitch Horton, University of Tennessee, Knoxville
- Dries Kimpe, KCG Holdings, Inc.
- Michael Kluge, TU Dresden
- Quincey Koziol, The HDF Group
- Joshua Ladd, Mellanox
- Michael Lang, Los Alamos National Laboratory
- John Leidel, Texas Tech University
- Zhuo Liu, Yahoo
- Jay Lofstead, Sandia National Laboratories
- Sarp Oral, Oak Ridge National Laboratory
- Balaji Palanisamy, University of Pittsburgh
- Seung Woo Son, University of Massachusetts Lowell
- Jian Tan, Alibaba
- Wei Tang, Argonne National Laboratory
- Zhiqi Tao, Intel Corporation
- Douglas Thain, University of Notre Dame
- Yandong Wang, IBM
- Bin Wang, Auburn University
- Belle Xiang, Huawei
- Weijun Xiao, Virginia Commonwealth University
- Pengcheng Xiong, Horton Networks
- Cong Xu, Intel
- Peixiang Zhao, Florida State University
- Fang Zheng, IBM
Enjoy the Workshop!

• Proceedings already available at http://dl.acm.org/citation.cfm?id=2831244

• Have feedback? Find us during a break, during closing remarks, or send email to discs2015@easychair.org