Call for Papers

1st International Workshop on High-Performance Interconnection Networks Towards the Exascale and Big-Data Era

HiPINEB 2015

To be held in conjunction with the IEEE Cluster 2015 Conference
Chicago, Illinois, USA, 8 Sept 2015
http://www.i3a.uclm.es/HiPINEB/

ABSTRACT

The main goal of this workshop is to gather and discuss, in a full-day event, the latest and groundbreaking advances in the design, development and configuration of scalable high-performance interconnection networks, especially those oriented towards meeting the Exascale challenge and Big-data demands. All researchers and professionals, both from industry and academia, working in the area of interconnection networks for scalable HPC systems and Datacenters are encouraged to submit an original paper to the workshop and to attend this event.

TOPICS OF INTEREST

The list of topics covered by this workshop includes, but is not limited to, the following:

- High-speed, low-latency interconnect architectures and technologies
- Scalable network topologies, suitable for interconnecting a very large number of nodes
- Power saving policies and techniques in interconnect components and network infrastructure, at both the software and hardware levels
- Innovative configuration of the network control software
- High-performance frameworks for distributed applications: MPI, RDMA, Hadoop, etc.
- APIs and support for programming models
- Routing algorithms
- Quality of Service (QoS)
- Reliability and Fault tolerance
- Load balancing and traffic scheduling
- Network Virtualization
- Congestion Management
- Applications and Traffic characterization
- Modeling and simulation tools
- Performance Evaluation

Note, however, that papers focused on topics that are too far from the design, development and configuration of high-performance interconnects for HPC systems and Datacenters (e.g., mobile networks, intrusion detection, peer-to-peer networks or grid/cloud computing) will be automatically considered as out of scope and rejected without review.

PAPER SUBMISSIONS

Papers must be in PDF format and should include title, authors and affiliations as well as the e-mail address of the contact author. Submitted manuscripts may not exceed 8 single-spaced double-column pages using 10-point size font on 8.5x11 inch pages, including figures, tables, and references. The conference style is based on IEEE and it is available at:

http://www.ieee.org/conferences_events/conferences/publishing/templates.html.

Authors can buy up to four additional pages in the proceedings. The first additional page would cost $100. The second additional page would cost another $200 (so $300 for the two additional pages). The third additional page would cost $300 (i.e. $600 in total for three pages), and the fourth additional page would cost $400 (i.e. $1000 for the four additional pages).

HiPINEB manuscript submissions are managed by easyChair. To submit a paper, go to https://easychair.org/conferences/?conf=hipineb2015 and follow the instructions.

PROCEEDINGS

Authors are entitled to submit original papers of high technical quality, according to the list of topics described above. Papers will be reviewed based on originality, novelty, technical strength, presentation quality, correctness and relevance to the conference scope. Papers will be published in the IEEE Cluster 2015 proceedings, which will be submitted for indexing and inclusion in Xplore and CSDL.

SPECIAL ISSUE

Best papers among those selected for HiPINEB 2015 will be published in a Special Issue of the Springer's Journal of Supercomputing (2013 Impact Factor: 0.841). Further information will be provided soon.

IMPORTANT DATES

- Submission Open: March 3, 2015
- Paper submission: May 25, 2015
- Notification of acceptance: July 3, 2015
- Camera-ready papers due: August 1, 2015
- Workshop date: Sep 8, 2015

All deadlines are set at 11:59 p.m. anywhere on Earth (cf. http://wirelessman.org/aoe.html).

WORKSHOP ORGANIZATION

Organizers:

- Pedro Javier Garcia, University of Castilla-La Mancha, Spain
- Jesus Escudero-Sahuquillo, Technical University of Valencia, Spain

Program Committee:

- Ahmed Louri, University of Arizona, USA
- Antonio Gonzalez, Technical University of Cataluña, Spain
- Bruno Farcy, Atos, France
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- Scott Hemmert, Sandia, USA
- Tor Skeie, University of Oslo, Norway

<u>Steering Committee</u>:

- Jose Duato, Technical University of Valencia, Spain
- Francisco Jose Quiles, University of Castilla-La Mancha, Spain
- Torsten Hoefler, ETH Zurich, Switzerland
- Timothy M. Pinkston, University of Southern California, USA

ADDITIONAL INFORMATION

For more information on HiPINEB 2015, or if you have any question, please contact the workshop organizers at jescudero@gap.upv.es or pedrojavier.garcia@uclm.es