

HIPINEB 2019

The 5th International Workshop of High-Performance Interconnection Networks in the Exascale and Big-Data Era.
Washington D.C., USA. 16-17 Feb, 2019
Colocated with IEEE HPCA conference



The main goal of the fifth edition of HiPINEB is to gather and discuss in a full-day event the latest and most prominent efforts and advances, from both industry and academia, in the design and development of scalable high-performance interconnection networks, especially those oriented to meet the Exascale challenge and Big-data demands. All researchers and professionals, from both 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:

- Interconnect architectures and network technologies for high-speed, low-latency interconnects.
- Scalable network topologies, suitable for interconnecting a huge number of nodes.
- Power saving policies in the interconnect devices and network infrastructure, both at software and hardware level.
- Good practices in the configuration of the network control software.
- Network communication protocols: MPI, RDMA, MapReduce, 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.
- Interfacing accelerators through the interconnect (GPUs, Xeon Phi, etc).
- Network infrastructure in distributed storage, distributed databases and Big-Data.

Furthermore, short papers in the above topics will be also taken into consideration, as long as they are based on emerging ideas, work-in-progress and early, high-impact achievements.

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

Regular and short 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 regular 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. Short papers may not exceed 4 single-spaced double-column pages using 10-point size font on 8.5x11 inch pages. At

least one author of the paper must be registered for the conference workshop. The conference style is based on IEEE (available at: http://www.ieee.org/conferences_events/conferences/publishing/templates.html). HiPINEB manuscript submissions are managed by EasyChair. To submit a paper, go to <https://easychair.org/conferences/?conf=hipineb2019> and follow the instructions.

REVIEW PROCESS

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.

WORKSHOP PROCEEDINGS

Papers will be published in the HiPINEB proceedings. Further details will be provided soon.

SPECIAL ISSUE

Best papers among those selected for HiPINEB 2019 will be invited to submit an extended version to a journal indexed in the JCR index. Further details will be provided soon.

IMPORTANT DATES

- Submission Opens: November 28, 2018
- Paper submission due: January 20, 2019 (Hard deadline)
- Notification of acceptance: January 30, 2019
- Early Registration due: TBA (<http://hPCA2019.seas.gwu.edu/>)
- Camera-ready papers due: February 2, 2019
- Workshop date: February 16-17, 2019

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, University of Castilla-La Mancha, Spain

Steering Committee:

- Jose Duato, Technical University of Valencia, Spain
- Ada Gavrilovska, Georgia Tech, USA
- Maria Engracia Gomez, Technical University of Valencia, Spain
- Torsten Hoefler, ETH Zurich, Switzerland
- Timothy M. Pinkston, University of Southern California, USA
- Francisco Jose Quiles, University of Castilla-La Mancha, Spain
- Eitan Zahavi, Mellanox, Israel

Program Committee:

TBA

ADDITIONAL INFORMATION

For more information on HiPINEB 2019 check the website at: <http://hipineb.i3a.info/hipineb2019> or, if you have any question, please contact the workshop organizers at hipineb@dsi.uclm.es