HOT INTERCONNECTS 26

IEEE Symposium on High Performance Interconnects
August 14-16, 2019
Intel, Santa Clara CA

The international forum where the high-performance computing and high-speed networking communities meet

Call for Papers

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Hot Interconnects (HotI) is the premier international forum for researchers and developers of state- of-the-art hardware and software architectures and implementations for interconnection networks of all scales, ranging from multi-core on-chip interconnects to those within systems, clusters, data centers, and clouds. This yearly conference is attended by leaders in industry and academia, creating a wealth of opportunities to interact with individuals at the forefront of this field.

Themes include cross-cutting issues spanning computer systems, networking technologies, and communication protocols for high-performance interconnection networks. This conference is directed particularly at new and exciting technology and product innovations in these areas. Contributions should focus on real experimental systems, prototypes, or leading-edge products and their performance evaluation. In addition to the main theme of the conference, contributions are also solicited on the topics listed below.

Building on last year's successful technical program comprising keynotes, technical sessions, and panels on networking for datacenters and high-performance computing, the 2019 edition of Hot Interconnects will be located at Intel's Campus in Santa Clara, CA. This year's conference focuses on HPC and Hyperscale Data Centers Interconnects and their use in traditional and non-traditional applications, such as large scale machine learning. We hope you can join us there.

We invite paper submissions across a wide range of topics and levels—ranging from fundamentals to the latest advances in hot topic areas. Topics of interest include, but are not limited to:

- Novel and innovative interconnect architectures
- Multi-core processor interconnects
- System-on-Chip Interconnects
- Advanced chip-to-chip communication technologies
- Optical interconnects
- Protocol and interfaces for inter-processor communication
- Survivability and fault-tolerance of interconnects
- System and storage area network architectures and protocols
- High-performance host-network interface architectures
- Software-defined networking and software overlay networks
- Software for network bring-up, configuration and performance management
- Virtual switches, and Network Functions Virtualization
- Data Center networking
- High-bandwidth and low-latency I/O
- Pb/s switching and routing technologies
- Survivability and fault-tolerance of interconnects
- Innovative architectures for supporting collective communication
- Novel communication architectures to support cloud & grid computing
- Requirements driving high-performance interconnects

Paper Format: Regular presentations consist of a title, an extended abstract (two to four pages) and the presenter's contact information (name, affiliation, job title, address, phone(s), fax, and email). Please indicate whether you have submitted, intend to submit, or have already presented or published a similar or overlapping submission to another conference or journal. Also indicate if you would like the submission to be held confidential. If so indicated, these submissions remain confidential until the first day of the conference.

Submissions are evaluated by the Program Committee on the basis of performance of the device(s), degree of innovation, use of advanced technology, potential market significance, and anticipated interest to the audience. Research and software contributions will be evaluated with similar criteria. To the extent that you are describing a product, indicate its status - design, development, tape out, silicon, shipping, etc.
Papers should be submitted electronically through EasyChair at
https://www.easychair.org/conferences/?conf=hoti26

Paper Publication and Presentation: A select group of presenters will be encouraged to submit a full-length paper for publication in a special issue of IEEE Micro. Paper presentations are 30-minute talks.

Awards: An award will be given to the best student paper. To be eligible for the best paper award at least one of the paper authors must be a full-time student at the time of submission. In addition, HotI will provide Student Travel Awards. Information on travel awards can be found on our web site: http://www.hoti.org

Important Dates:
Deadline for submissions: **May 10, 2019 (11:59PM AOE)**
Notification of acceptance: **May 31, 2019**
Deadline for slide submission: **July 29, 2019**