

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. **This year's best papers on interconnect microarchitecture will be invited to submit extended versions of their papers to a special edition of IEEE Micro.**

Building on last year's successful technical program comprising keynotes, technical sessions, and panels on networking for datacenters and high-performance computing, the 2015 edition of Hot Interconnects will be located at Oracle Agnews Campus in Santa Clara, CA. This year's conference focuses on HPC Interconnects and their use in traditional and non-traditional applications. 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: This year we invite papers to be submitted either as **regular, long papers** (6-8 pages) or as **short papers** (3-4 pages). Short papers could be positional papers, industry papers, or papers describing hot-off-the-press breaking research results, and will be judged accordingly and independently from the regular papers. Papers need sufficient technical detail to judge quality and suitability for presentation. Submissions should include title, author, abstract, and paper in double-column, IEEE format. Papers should be submitted electronically through EasyChair at <https://www.easychair.org/conferences/?conf=hoti23>. Paper title and abstract (250 words max) should be submitted by April 27th; full paper is due May 4th.

Paper Publication and Presentation: Papers selected will be published in proceedings by the IEEE Computer Society. Regular paper presentations are 30-minute talks in a single-track conference format. The best microarchitecture themed papers will be invited to submit an extended version of their paper to a special edition of IEEE Micro for the Jul/Aug 2016 special edition.

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:

Paper abstract deadline: **May 4, 2015**

Paper submission deadline: **May 11, 2015**

Notification of acceptance: **June 15, 2015**

Submission of select extended journal papers for IEEE Micro: **January 6th, 2016**



Venue: Oracle
 Agnews Santa
 Clara Campus

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