

ACM International Conference on Computing Frontiers 2014

May 20 - 22, 2014, Cagliari, Italy

www.computingfrontiers.org



Deadline Extension: the submission deadline is extended to Friday, 24th.

Computing Frontiers represents an engaged, collaborative community of researchers who are excited about transformational technologies in the field of computing. We are presently on the cusp of several revolutions, including new memory technologies, networking technologies, algorithms for handling large-scale data, power-saving and energy-efficient solutions for data centers, systems solutions for cloud computing, and many, many more. Boundaries between the state-of-the-art and revolutionary innovation constitute the computing frontiers that must be pushed forward to advance science, engineering, and information technology. Before revolutionary materials, devices, and systems enter the mainstream, early research must be performed using far-reaching projections of the future state of technologies.

Computing Frontiers is a gathering for people to share and discuss such work, focusing on a wide spectrum of advanced technologies and radically new solutions relevant to the development of the whole spectrum of computer systems, from embedded to high-performance computing.

Topics of Interest

We seek contributions that push the envelope in a wide range of computing topics, ranging from more traditional research in architecture and systems to new technologies and devices. We seek contributions on novel computing paradigms, computational models, algorithms, application paradigms, development environments, compilers, operating environments, computer architecture, hardware substrates, and memory technologies. We are also interested in emerging fields that may not fit within traditional categories.

- **Algorithms and Models of Computing**
approximate and inexact computing, quantum and probabilistic computing
- **Big Data**
analytics, machine learning, search and representation, system design
- **System Complexity Management**
cloud systems, datacenters, computational neuroscience, biologically-inspired architectures
- **Computers and Society**
education, health and cost/energy-efficient design, smart cities, emerging markets
- **Security**
architecture and systems support for protection against malicious code
- **Limits on Technology Scaling and Moore's Law**
defect- and variability-tolerant designs, graphene and other novel materials, nanoscale design, optoelectronics, dark silicon
- **Uses of Technology Scaling**
3D stacked technology, challenges of manycore designs, PCM's, novel memory architectures, mobile devices
- **Compiler technologies**
novel techniques to push the envelope on new technologies, applications, hardware/software integrated solutions, advanced analysis
- **Networking**
technology and protocols, bandwidth management, social networks, internet of things

Submission

Authors are invited to submit full papers or posters to the main conference. Full papers and poster abstracts must be submitted through the [conference paper submission site](#). Full papers should not exceed **10 double-column** pages in **ACM SIG alternate style** (Option 2). Poster abstracts should not exceed two pages in the same format. These limits include figures, tables, and references. Our review process is **double-blind**. Thus, please remove all identifying information from the paper submission (also if citing own work). Abstracts for accepted posters will be published in the proceedings and in the ACM Digital Library (note that authors of these works retain their copyright rights to publish more complete versions later). As per ACM guidelines, at least one of the authors of accepted papers is required to register for the conference.

Paper/Poster Submission Deadline

Friday January 24, 2014,
11:59.59 PM (PST)

Author Notification

Friday February 28, 2014

Camera-Ready Papers Due

Saturday March 15, 2014

Submit your paper [here](#)

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