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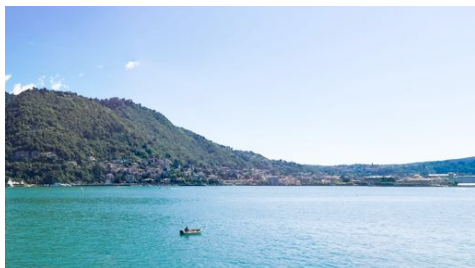
ACM International Conference on Computing Frontiers 2016



May 16 - 18, 2016, Como, Italy
<http://www.computingfrontiers.org>



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The field of computing requires new breakthroughs to adapt to the ever-changing requirements of society. Technology is on the verge of revolutions in memory devices and systems, networks, electronic device production, machine learning, data analytics, cloud computing, techniques to improve power and energy efficiency, and many more areas. New application domains that affect every day life are constantly emerging. 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. Early research, using far-reaching projections of the future state of technologies, provides the bases that will allow revolutionary materials, devices, and systems to become mainstream. Revolutionary breakthroughs are enabled through collaborative efforts among researchers of different expertise and backgrounds.

We seek contributions that push the envelope in a wide range of computing topics, 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, memory technologies, and smarter life applications. 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
 - *Biological Computing Models*: Brain computing, neural computing, computational neuroscience, biologically-inspired architectures
 - *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 many-core designs, accelerators, PCM's, novel memory architectures, mobile devices
 - *Embedded and Cyber-Physical systems*: Design space exploration, ultra-low power designs, energy scavenging, reactive and real-time systems, reconfigurable and self-aware systems, sensor networks, internet of things, wearables
 - *Big Data Analytics*: High performance data analytics, machine and deep learning, data search and representation, architecture and system design
 - *Large-scale systems design*: Homogeneous and heterogeneous architectures, runtimes, networking technologies and protocols, Cloud and Grid systems, datacenters, exa-scale computing, power- and energy management
 - *Compiler technologies*: Novel techniques to push the envelope on new technologies, applications, hardware/software integrated solutions, domain specific languages, advanced analysis, high-level synthesis
 - *Security*: methods, system support, and hardware for protecting against malicious code, real-time implementation of security algorithms and protocols, quantum and post-quantum cryptography, advanced persistent threats, cyber and physical attacks and countermeasures
 - *Computers and Society*: Education, health and cost/energy-efficient design, smart cities, emerging markets
 - *Interdisciplinary Applications*: Applications that bridge multiple disciplines in interesting ways
- CF 2016 also encourages Position Papers, Trend Papers, and poster submissions on "frontier" topics.

Submission site: <https://easychair.org/conferences/?conf=cf16>

Papers must be submitted through the conference paper submission site. Authors will declare in advance to which category they are submitting. Full papers are allowed up to eight (8) double-column pages in standard ACM conference format. Authors will be able to buy up to two (2) extra pages at 100 Euro per page. Authors can submit full papers of up to ten (10) double-column pages, provided that they do not reduce the size of the paper and agree to pay the additional pages if the paper is accepted. Position and trend papers should be at least two (2) pages and not exceed four (4) pages in the same format. Poster abstracts should be at least two (2) pages and not exceed four (4) 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 (and cite your own work in the third person). The best papers will be invited in special issues of IJPP or PARCO.

Important Dates

Paper Submission Deadline
January 29, 2016

Author Notification
March 11, 2016

Camera Ready
March 25, 2016