



CALL FOR PAPERS



ACM International Conference on
Computing Frontiers 2018

May 8 - 10, 2018, Ischia, Italy

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Computing Frontiers is an eclectic, collaborative community of researchers who investigate emerging technologies in the broad field of computing: our common goal is to drive the scientific breakthroughs that transform society. Technology is experiencing revolutions in memory devices and systems, networks, electronic device production, machine learning, data analytics, cloud computing, techniques to improve power and energy efficiency, systems portability/wearability, to name but a few areas. New application domains that affect everyday life are emerging, especially in the era of highly interconnected and collaborative cyber-physical systems. Boundaries between the state-of-the-art and revolutionary innovation constitute the frontiers that mark the advances of science, engineering, and information technology. Early research that envisions future technologies provides the bases that allow novel materials, devices, and systems to become mainstream. Collaborative efforts among researchers with different expertises and backgrounds enables revolutionary scientific breakthroughs that lead to innovative solutions over a wide spectrum of computer systems, from embedded and hand-held/wearable devices to supercomputers and datacenters.

TOPICS OF INTEREST

We seek original research contributions at the frontiers of a wide range of topics, including novel computing paradigms, computational models, algorithms, application paradigms, development environments, compilers, operating environments, computer architecture, hardware substrates, memory technologies, and smarter life applications.

- Algorithms and Models of Computing
- Biological Computing Models
- Limits on Technology Scaling
- Uses of Technology Scaling
- Embedded and Cyber-Phys. Systems
- Big Data Analytics
- Machine and Deep Learning
- Large-Scale System Design
- Fault tolerance and resilience
- Compiler Technologies
- Security
- Computers and Society
- Interdisciplinary Applications

We also strongly encourage submissions in emerging fields that may not fit into traditional categories -- if in doubt, please contact the PC co-chairs.

SUBMISSION

Authors are invited to submit full or short papers to the main conference. Papers must be submitted through easychair.org/conferences/?conf=cf18

Authors must declare in advance to which category they are submitting. Full papers are a maximum of eight (8) double-column pages in ACM conference format with an option for authors to buy up to 2 extra pages after acceptance. Short paper submissions should be at least two (2) pages and not more than four (4) pages in the same format. These limits include figures, tables, and references. Our review process is double-blind: please remove all identifying information from the paper submission (and cite your own work in the third person). Short papers may cover on-going research that is seeking for early feedback and will be presented at the conference as oral presentation in a dedicated slot and in a poster session.

Both full and short papers will be published in the proceedings and in the ACM Digital Library. Authors of selected best papers will be invited to contribute with an extension of their work in a Special Issue of JSPS.

IMPORTANT DATES

Paper Submission Deadline	January 21, 2018
Author Notification	March 7, 2018
Camera Ready Papers	March 31, 2018

