

NPC 2017 The 14th IFIP International Conference on Network and Parallel Computing

October 20th-21st 2017, Hefei, China

IMPORTANT DATES

Paper Submissions Due

June 10th, 2017

Results notification

July 24th, 2017

Camera-ready version due

August 7th, 2017

Call for Papers

High Performance Computing and Big Data are two main areas where NPC 2017 will provide a dynamic forum to explore, discuss and debate state-of-the-art technology issues and challenges. High-performance computers and big-data systems are tied inextricably to the broader computing ecosystem and its designs and market adoption. They also highlight information security needs and economic competitiveness in ways that distinguish them from most other scientific instruments. We strongly believe that the stake is high, and it is far beyond the boundaries of nations and continents, and should strongly encourage a broad international participation.

We share the view that, during the past decade, the tools and cultures of high-performance computing and big data analytics are diverging to the detriment of both, and the international community should find a unified path that can best serve the need of a broad spectrum of major application areas. Unlike other tools, which are limited to particular scientific domains, computational modeling and data analytics are applicable to all areas of science and engineering, as they breathe life into the underlying mathematics of scientific models.

Parallel and distributed applications and algorithms

- Parallel and distributed issues and opportunities on artificial intelligence application.
- Parallel algorithms for computational and data-enabled scientific, engineering, biological and medical applications
- Parallel algorithms for accelerators, neuromorphic architectures, and other emerging architectures

Parallel and distributed architectures and systems

- Emerging architectures and systems at all scales, from embedded to cloud.
- Systems for enabling parallelism at an extreme scale
- Power-efficient and green computing systems
- Neuromorphic architectures and cognitive computing accelerators
- Heterogeneous multicore architectures and accelerators
- In-Memory and near-data computing
- Network and interconnect architectures
- Storage systems in novel big data architectures

Parallel and distributed software environments and tools

- Programming models and compilation for existing and emerging platforms

- Dataflow programming models, frameworks, languages and environments for data-enabled platforms
- Virtualization of machines, networks, and storage
- I/O, file systems, and data management
- Resource management, scheduling, and load balancing

NPC is in its 14th year and previous conferences have attracted high quality papers and wide international participation. As in previous years, we will publish top papers from NPC 2017 in a special issue of the International Journal of Parallel Programming (IJPP), and the proceedings will be published as part of Springer LNCS. Additional details can be found in NPC 2017 website <http://npc-china2017.org> .