

# PAAP 2021

XI'AN, CHINA  
December 10-12, 2021

## CALL FOR PAPERS

## THE 2021 12TH INTERNATIONAL SYMPOSIUM ON PARALLEL ARCHITECTURES, ALGORITHMS AND PROGRAMMING

### INTRODUCTION

Following the successful PAAP'08 in Hefei, PAAP'09 in Nanning, PAAP'10 in Dalian, and PAAP'11 in Tianjin, PAAP'12 in Taipei, PAAP'14 in Beijing, PAAP'15 in Nanjing, PAAP'17 in Haikou, PAAP'18 in Taiwan, PAAP'19 in Shenzhen, the twelfth International Symposium on Parallel Architectures, Algorithms and Programming (PAAP'21) will be held in Xi'an, China, December 10-12, 2021. PAAP 2021 will provide a forum for scientists and engineers in academia and industry to present their research results and development activities in all aspects of parallel architectures, algorithms and programming techniques. We devoutly wish participants to learn the basic theory of a gradual approach, practical experimental data, new business models, and the latest academic trends from this conference.

PAAP 2021 will be organized by Xidian University. Directly under the Ministry of Education, XDU is a national key university featuring electronic and information science. According to the latest report of ESI, the engineering and computer science disciplines are listed among top 0.1% in the world, and computer science ranks 28th in the world. In the Fourth National Assessment of First-level disciplines, 3 disciplines at Xidian University have been rated A. Electronic Science and Technology is rated A+, ranking #1 nationwide, Information and Communication Engineering A, and Computer Science and Technology A-.

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## TOPICS

We are inviting new and unpublished papers on, but not limited to, the following topics:

### Architectures

- Multi/many-core architectures
- Interconnection networks
- Cluster, grid and cloud computing systems
- Network-on-chip architectures
- Survivable and safety-critical systems
- Ubiquitous computing systems
- Sensor, wireless and RFID systems
- Reconfigurable architectures
- Self-healing, self-protecting network systems

### Algorithms

- Combinatorial and graph algorithms
- Numeric algorithms
- Task mapping and job scheduling
- Parallel/distributed databases and knowledge discovery
- High-performance scientific computing
- Resource allocation and management
- Power-aware Computing
- Secure distributed computing
- Network routing and traffic control

### Parallel Programming

- Multi/many-core programming
- Parallel programming theory and models
- Formal methods and verification
- Middleware for parallel systems
- Parallel programming languages
- Parallel compilers and runtime systems
- Performance analysis, debugging and optimization
- Parallel libraries and application frameworks

### Privacy and Security

- Cloud security
- Data privacy protection
- Cryptography
- Intrusion detection
- Copyright protection
- Access control
- Data provenance
- Trusted computing

### High Performance Systems

- Operating systems for parallel/distributed systems
- High-performance computer arithmetic
- Memory hierarchy and caching
- Performance tuning, optimization and profiling
- Human-computer interaction in parallel/distributed systems
- Photonic and quantum computing
- Media computing in parallel/distributed systems
- Software engineering for parallel/distributed system

### Big Data Processing and Deep Learning

- Mass data stream processing in clouds
- Big data models and computation theory
- Big data mining and fusion
- Dimension reduction for large data sets
- Big data placement, scheduling and optimization
- Multi-source data processing and integration
- Deep learning models
- Deep learning applications

## SUBMISSION INFORMATION

The conference proceedings will be published in Communications in Computer and Information Science (CCIS) with Springer. CCIS is abstracted/indexed in DBLP, Google Scholar, EI-Compendex, Mathematical Reviews, SCImago, Scopus. Papers reporting original and unpublished research results and experience are solicited. Papers will be selected based on their originality, timeliness, significance, relevance, and clarity of presentation. Papers must be written in English without exceeding 12 pages in length.

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## SPONSORS

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## IMPORTANT DATES

Full paper submission due:	Aug. 31, 2021
Notification acceptance:	Sept. 30, 2021
Camera-ready paper and registration due:	Oct. 15, 2021
Conference date:	Dec. 10-12, 2021