

The 25th International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP 2025)

Zhengzhou, Henan, Oct. 30 - Nov. 02, 2025

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Call for Papers

ICA3PP 2025 provides a forum for academic researchers and industry practitioners to present research progresses, exchange new ideas, and identify future directions in the fields of Parallel and Distributed Architectures, Software Systems and Programming Models, Parallel and Distributed Algorithms and Applications, Service Dependability and Security in Distributed and Parallel Systems and so on. ICA3PP 2025 is a CCF Rank-C conference. Accepted papers would be published by Springer and submitted to the EI database. Excellent papers with extension will be recommended for special issues in renowned journals.

ICA3PP 2025 Tracks and Topics

Track 1: Parallel and Distributed Architectures

- Parallel Architectures
- Parallel Programming Paradigms
- Heterogeneous Systems
- Energy-Efficient Parallel and Distributed Systems
- Service-oriented Architectures
- Blockchain Architecture
- Emerging Computing Architectures

Track 2: Software Systems and Programming Models

- Cluster, Distributed & Parallel Operating Systems and Middleware
- System Software for Parallel and Concurrent Programming
- Programming Models for Compute and Storage
- Parallel File Systems and Storage
- Parallel and Distributed Databases
- Parallel Programming Theory and Models
- Tools for Programming and Analysis of System Software

Track 3: Parallel and Distributed Algorithms and Applications

- Reliability and Fault-tolerant Computing
- High-performance Scientific Computing
- Parallel and Distributed Algorithms
- Resource Management and Scheduling
- Parallel and Distributed AI/Machine Learning
- Multimedia in Parallel Computing
- Parallel Computing in Bioinformatics
- Industrial Applications

Track 4: Service Dependability and Security in Distributed and Parallel Systems

- Dependability Issues in Computer Networks and Communications
- Dependability in Parallel and Distributed Systems
- Dependability of Software Defined Networks
- Self-healing, Self-protecting and Fault-tolerant Systems
- Network and Information Security
- Trust, Security and Privacy in Cloud computing, Social Networks, and Internet of Things
- Security and Privacy in Parallel and Distributed Computing

Track 5: Network Architectures and Algorithms

- Wireless and Mobile Networks
- High Performance Networks and Communication
- AI/Machine Learning for Networking
- Network and Interconnect Architectures
- SDN, NFV and Network Programming
- Energy Efficiency in Networks
- Network Measurement and Parallel Processing

Track 6: Big Data Management and Analysis

- Architecture, Networks and Systems of Big Data
- Big Data Applications, Algorithms and Data Structures
- Research and Development Trends of Big Data
- Big Data Benchmarking, Monitoring, and Management
- Security and Privacy of Big Data
- Big Data Interoperability and Orchestration
- Parallel Processing for Big Data
- Distributed Data Analytics and Applications

Track 7: Internet of Things and Cyber-Physical-Social Computing

- Machine Learning and Edge AI for IoT
- Pervasive/Ubiquitous Control, Computing and Networking
- Social Computing and Analytics on Cyber-Physical Data
- Smart Communities with Cyber-Physical-Social Systems
- Ubiquitous Sensing in Social Networks
- Cyber-Physical-Social Systems and Networks
- Cyber-Physical-Social Applications

Track 8: Performance Modeling and Evaluation

- Performance of Parallel & Distributed Computing Systems
- Software and Hardware Reliability, Testing, Verification and Validation
- Tools and Environments for Parallel & Distributed Software Development
- Optimization, Modeling and Simulation
- Stochastic Analysis, Statistical Analysis and Simulation
- Planning, Scheduling and Quality-of-Service
- Game theory, Economics and Control Theory

Important Dates

Workshop Proposal Due:	15 May 2025
Paper Submission Due:	30 June 2025
Author Notification Due:	15 August 2025
Camera-ready and Registration:	30 August 2025
Conference Dates:	30 October - 2 November 2025

Paper Submission

All papers need to be submitted electronically through the conference submission website (EDAS) in PDF format at <https://edas.info/N33874>.

Paper Publication

Accepted conference papers will be published by Springer (EI indexed). At least one author of each accepted paper is required to register and present their work at the conference. Best paper awards will be presented at the conference. Selected high quality papers will be nominated to publish at high-level journal, after further extensions and revisions.

Co-located with Five Conferences as IEEE Cybermatics Congress 2025:

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ICA3PP 2025 Website: <https://ieee-cybermatics.org/2025/ica3pp/>



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