

Topic 8

Distributed Systems and Algorithms

Luís Rodrigues, Achour Mostefaoui, Christof Fetzer, and Philippos Tsigas

Topic Chairs

Parallel computing is increasingly exposed to the development and challenges of distributed systems, such as the lack of load balancing, asynchrony, long latencies, network partitions, failures, disconnected operations, heterogeneity and protocol standardization. Furthermore, distributed systems are becoming larger, more diverse and more dynamic. This Euro-Par topic provides a forum for research and practice, of interest to both academia and industry, about distributed systems, distributed computing, distributed algorithms, and parallel processing on distributed systems. Submission was encouraged across the whole area, with emphasis on the following: design and practice of distributed algorithms and data structures, analysis of the behaviour of distributed systems and algorithms, distributed operating systems, parallel processing on distributed systems, resource and service discovery, resource sharing and in distributed systems, distributed fault tolerance, security in distributed systems, scalability, concurrency and performance in distributed systems, middleware for parallel computations, web services, interoperability and standards, self-organised and self-adjusting distributed systems.

Thirty-two papers were submitted in this topic, eight of which have been accepted for publication. The accepted papers cover a wide range of aspects in the distributed system and algorithms topic. Three papers are related with the problem of data sharing in distributed and parallel systems, two papers address issues related with mobile agents in graphs, and, finally, three papers address fundamental distributed algorithm problems, such as failure detection, consensus, and spanning tree construction.