Introduction

Leonel Sousa, Frédéric Suter, Alfredo Goldman,
Rizos Sakellariou, and Oliver Sinnen

Topic chairs

Scheduling and load balancing are fundamental issues for deploying applications on parallel and distributed systems. Static and dynamic techniques, deterministic and stochastic methods have been researched to tackle the hard problem of achieving the minimum span and the optimal load balancing, making the best use of parallel and distributed systems by maintaining the resources busy and minimizing energy consumption. Although research has been done for years and years, namely for static scheduling and dynamic load balancing, these are old but very timely topics of research in the era of multicore computers and cloud computing. New challenges arise with the increased interest in applications with real-time constraints, the continuous growth of algorithms complexity and sophistication of applications, and the heterogeneity of systems and the diversity of their conditions of operation. This year, the contributions in the scheduling and load-balancing topic of Euro-Par provide a very good coverage of different perspectives and aspects, with a focus on both theoretical aspects and practical questions. Some of these papers are focused on heterogeneous systems, in particular on more hierarchical systems, some also considering failures, there are a few that address theoretical aspects and one mainly presents experimental work. The papers continue to cover the two ends of the hardware spectrum, tightly-coupled multicore systems and clusters of workstations. Energy awareness has become important for all types of computing and it is addressed in the accepted papers for the small scale, in embedded systems, as well as for larger computing facilities, such as clusters. Modern scheduling and load balancing is dominated by the inclusion of more aspects into the scheduling decisions, be it communication and memory location aspects or even the social influence. The task of selecting the papers to be presented at the conference was hard, because the number of submissions was high and the quality excellent. Only 9 papers were accepted for publication, which led to quite a low acceptance rate in this topic. All papers were reviewed by at least four independent reviewers. We would like to thank all the reviewers for their time and effort. The quality of the reviews simplified the selection process. At the same time, we would like to thank all authors, in particular the ones that did not have their manuscripts accepted. Their contributions allow Euro-Par to maintain its position as one of the premier scientific conferences where innovative scheduling research for parallel and distributed systems is presented year after year.

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