Topic 03
Scheduling and Load Balancing

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General Presentation

Mapping a parallel computation onto a parallel computer system is one of the most important questions for the design of efficient parallel algorithms. Especially for irregular data structures the problem of distributing the workload evenly onto parallel computing systems becomes very complex. This workshop will discuss the state of the art in this area.

Besides the discussion of novel techniques for mapping and scheduling irregular dynamic or static computations onto a processor architecture, a number of problems are of special interest for this workshop. One is the development of dynamic load balancing algorithms that adapt themselves to the special characteristics of the underlying heterogeneous parallel or distributed architecture, easing the development in suitable environments of portable applications. Others topics in this uncomplete list of problems of relevance for this workshop concern new sequential or parallel partitioning algorithms, and efficient mapping or scheduling strategies for particular classes of applications.

The papers selected for presentation in the workshop (9 regular papers and 5 short papers) are split into 4 sessions each of which consists of works which cover a wide spectrum of different topics. We would like to thank sincerely the more than 40 referees that assisted us in the reviewing process.

P. Amestoy et al. (Eds.): Euro-Par'99, LNCS 1685, pp. 271–271, 1999.