Parallel and distributed computing offer the promise to deliver the computing power necessary to solve many important problems whose requirements exceed the capabilities of the most powerful existing computers. Aiming to fulfill this promise, recent years have seen a flurry of activity in the arena of parallel and distributed computing which evolved into novel and robust computing models. These models reflect advances in computational devices and environments such as optical interconnects, programmable logic arrays, networks of workstations, radio communications, mobile computing, DNA computing, quantum computing, sensor networks, etc. In addition, practical experience with both parallel computers and distributed data communication networks has brought about an understanding of their potential and limitations which, in turn, have fostered the development of sophisticated algorithms. It is very encouraging see that the advent of these models, combined with the availability of efficient algorithms, has led to significant advances in the resolution of various difficult problems of practical interest.

The workshop on Advances in Parallel and Distributed Computational Models – APDCM – aims to provide a forum to present current work by researchers from around the world as well as highlight activities and techniques in the field of the parallel and distributed computing. The APDCM workshop has a history of attracting participation from reputed researchers worldwide. The eight edition of the workshop will be held on April 25, 2006, Rhodes Island, Greece, in conjunction with the International Parallel and Distributed Processing Symposium – IPDPS 2006.

As in the previous editions, the APDCM’06 attracted a large number of excellent submissions. Each paper was of exceptional quality and presented a unique contribution in the field. The Program Committee undertook the difficult job of carefully evaluating the submitted papers. After a thorough reviewing process, with extensive discussions, we were able to accept high caliber papers, on various topics, for presentation at the workshop.

On behalf of the APDCM workshop, we would like to express our appreciation for the large efforts of the program committee members. We thank all the authors that submitted their papers to the APDCM workshop. We sincerely hope that the authors whose articles have not been selected for presentation can benefit from the reviewer’s comments.

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