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Many-Core Era -- Topology-Aware OpenMP Process Scheduling -- How to Reconcile Event-Based Performance Analysis with Tasking in OpenMP -- Fuzzy Application Parallelization Using OpenMP -- Hybrid Parallel Programming on SMP Clusters Using XPFortran and OpenMP -- A Case for Including Transactions in OpenMP -- OMPCUDA : OpenMP Execution Framework for CUDA Based on Omni OpenMP Compiler.

Sommario/riassunto

This book contains the proceedings of the 6th International Workshop on OpenMP held in Tsukuba City, Japan, in June 2010. The International Workshop on OpenMP is an annual series of workshops dedicated to the promotion and advancement of all aspects focusing on parallel programming with OpenMP. OpenMP is now a major programming model for shared memory systems from multi-core machines to large-scale servers. Recently, new ideas and challenges have been proposed to extend OpenMP framework to support accelerators and also to exploit other forms of parallelism beyond loop-level parallelism. The workshop serves as a forum to present the latest research ideas and results related to this shared memory programming model. It also offers the opportunity to interact with OpenMP users, developers and the people working on the next release of the specification. In response to the Call-for-Papers for the technical program, the Program Committee received a total of 23 submissions from all over the world including Asia, USA and Europe, and all submissions were carefully refereed in a rigorous process which required at least three reviews for each paper, using the EasyChair conference system.

The final decisions were collectively made in March 2010. Due to time and space limitations for the workshop and proceedings, only 13 papers could be selected for presentation and inclusion in the proceedings. We believe we have chosen a diverse, high-quality set of papers, reflecting a stimulating and enjoyable workshop. Finally, we would like to thank all authors, referees, and committee members for their outstanding contributions which have ensured a continuation of the high quality of IWOMP workshops.
