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	Nota di contenuto	Performance Tools -- Performance Analysis of Large-Scale OpenMP and Hybrid MPI/OpenMP Applications with Vampir NG -- ompP: A Profiling Tool for OpenMP -- On the Interaction of Tiling and Automatic Parallelization -- Static Nonconcurrency Analysis of OpenMP Programs -- CCRG OpenMP Compiler: Experiments and Improvements -- Compiler Technology -- Implementing an OpenMP Execution Environment on InfiniBand Clusters -- An Introduction to Balder — An OpenMP Run-time Library for Clusters of SMPs -- Run-Time Environment -- Experiences with the OpenMP Parallelization of DROPS,

a Navier-Stokes Solver Written in C++ -- A Parallel Structured Ecological Model for High End Shared Memory Computers -- Multi-cluster, Mixed-Mode Computational Modeling of Human Head Conductivity -- Application I -- An Evaluation of OpenMP on Current and Emerging Multithreaded/Multicore Processors -- SPEC OpenMP Benchmarks on Four Generations of NEC SX Parallel Vector Systems -- Performance Evaluation of Parallel Sparse Matrix–Vector Products on SGI Altix3700 -- The OpenMP Language and Its Evaluation -- The OpenMP Memory Model -- Evaluating OpenMP on Chip MultiThreading Platforms -- Experiences Parallelizing a Web Server with OpenMP -- Advanced Performance Tuning -- Automatic Granularity Selection and OpenMP Directive Generation Via Extended Machine Descriptors in the PROMIS Parallelizing Compiler -- Nested Parallelization of the Flow Solver TFS Using the ParaWise Parallelization Environment -- Performance Characteristics of OpenMP Language Constructs on a Many-core-on-a-chip Architecture -- Improving Performance of OpenMP for SMP Clusters Through Overlapped Page Migrations -- Aspects of Code Development -- Adding New Dimensions to Performance Analysis Through User-Defined Objects -- Performance Instrumentation and Compiler Optimizations for MPI/OpenMP Applications -- Supporting Nested OpenMP Parallelism in the TAU Performance System -- Parallelization of a Hierarchical Data Clustering Algorithm Using OpenMP -- OpenMP and C++ -- Common Mistakes in OpenMP and How to Avoid Them -- Formal Specification of the OpenMP Memory Model -- Applications II -- Performance and Programmability Comparison Between OpenMP and MPI Implementations of a Molecular Modeling Application -- OpenMP Implementation of SPICE3 Circuit Simulator -- Automatic Generation of Parallel Code for Hessian Computations -- Geographical Locality and Dynamic Data Migration for OpenMP Implementations of Adaptive PDE Solvers -- Proposed Extensions to OpenMP -- A Comparison of Task Pool Variants in OpenMP and a Proposal for a Solution to the Busy Waiting Problem -- A Proposal for OpenMP for Java -- A Proposal for Error Handling in OpenMP -- Extending the OpenMP Standard for Thread Mapping and Grouping.

Sommario/riassunto

This book constitutes the thoroughly refereed post-workshop proceedings of the First and the Second International Workshop on OpenMP, IWOMP 2005 and IWOMP 2006, held in Eugene, OR, USA, and in Reims, France, in June 2005 and 2006 respectively. The first part of the book presents 16 revised full papers carefully reviewed and selected from the IWOMP 2005 program and organized in topical sections on performance tools, compiler technology, run-time environment, applications, as well as the OpenMP language and its evaluation. In the second part there are 19 papers of IWOMP 2006, fully revised and grouped thematically in sections on advanced performance tuning aspects of code development applications, and proposed extensions to OpenMP.