

1. Record Nr.	UNISA996466045603316
Titolo	Shared Memory Parallel Programming with Open MP [[electronic resource] ] : 5th International Workshop on Open MP Application and Tools, WOMPAT 2004, Houston, TX, USA, May 17-18, 2004 // edited by Barbara M. Chapman
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2005
Edizione	[1st ed. 2005.]
Descrizione fisica	1 online resource (X, 154 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 3349
Disciplina	005.2/75
Soggetti	Software engineering Computer engineering Computer networks Computer science Computer science—Mathematics Software Engineering Computer Engineering and Networks Theory of Computation Mathematics of Computing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Parallelization of General Matrix Multiply Routines Using OpenMP -- Performance Analysis of Hybrid OpenMP/MPI N-Body Application -- Performance and Scalability of OpenMP Programs on the Sun FireTM E25K Throughput Computing Server -- What Multilevel Parallel Programs Do When You Are Not Watching: A Performance Analysis Case Study Comparing MPI/OpenMP, MLP, and Nested OpenMP -- SMT/OMP: A Toolset to Study and Exploit Memory Locality of OpenMP Applications on NUMA Architectures -- Dragon: A Static and Dynamic Tool for OpenMP -- The ParaWise Expert Assistant – Widening Accessibility to Efficient and Scalable Tool Generated OpenMP Code -- Automatic Scoping of Variables in Parallel Regions of an OpenMP Program -- An Evaluation of Auto-Scoping in OpenMP -- Structure and

Algorithm for Implementing OpenMP Workshares -- Efficient  
Implementation of OpenMP for Clusters with Implicit Data Distribution  
-- Runtime Adjustment of Parallel Nested Loops.

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Sommario/riassunto

This book contains the Proceedings of the 5th Workshop on OpenMP Applications and Tools (WOMPAT2004), which took place at the University of Houston, Houston, Texas on May 17 and 18, 2004. Previous workshops in this series took place in Toronto, Canada, Fairbanks, Alaska, Purdue, Indiana, and San Diego, California. The purpose of the workshop was to bring together users and developers of the OpenMP API for shared memory parallel programming to disseminate their ideas and experiences and discuss the latest developments in OpenMP and its application. To support this aim, the program comprised a mixture of invited talks from research and industry, experience reports, and submitted papers, the last of which are presented in this volume. A tutorial introduction to OpenMP was held at the same location on May 18 by Ruud van der Pas from Sun Microsystems. Further, a two-day lab session called OMPlab was held immediately following the workshop and the tutorial on May 19 and 20, and was attended by both novice and advanced users. Many of the hardware vendors and several researchers gave in-depth tutorials on their software and made their systems available to both novice and advanced attendees during OMPlab. Contributors to the WOMPAT 2004 OMPlab included IBM, Intel, Sun, the University of Tennessee, NASA, the University of Greenwich, Cornell University, the University of Oregon and the University of Houston. The OpenMP API is a widely accepted standard for high-level shared memory parallel programming that was put forth by a consortium of vendors in 1997.

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