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Titolo	Recent Advances in Parallel Virtual Machine and Message Passing Interface [[electronic resource]] : 14th European PVM/MPI User's Group Meeting, Paris France, September 30 - October 3, 2007, Proceedings / / edited by Franck Capello, Thomas Herault, Jack Dongarra
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Collana	Programming and Software Engineering ; ; 4757
Disciplina	004.6
Soggetti	Architecture, Computer Computer programming Programming languages (Electronic computers) Computers Numerical analysis Arithmetic and logic units, Computer Computer System Implementation Programming Techniques Programming Languages, Compilers, Interpreters Computation by Abstract Devices Numeric Computing Arithmetic and Logic Structures
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Formato	Materiale a stampa
Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Talks -- The X-Scale Challenge -- Sustained Petascale: The Next MPI Challenge -- MPI: Past, Present and Future -- New and Old Tools and Programming Models for High-Performance Computing -- The TSUBAME Cluster Experience a Year Later, and onto Petascale TSUBAME 2.0 -- To Infinity and Beyond?! On Scaling Performance Measurement and Analysis Tools for Parallel Programming -- Tutorials -- Using MPI-2: A Problem-Based Approach -- Verifying Parallel Programs with MPI-Spin -- Advanced MPI Programming -- Outstanding

Papers -- Full Bandwidth Broadcast, Reduction and Scan with Only Two Trees -- Process Cooperation in Multiple Message Broadcast -- Self-consistent MPI Performance Requirements -- Test Suite for Evaluating Performance of MPI Implementations That Support MPI_THREAD_MULTIPLE -- Applications -- An Improved Parallel XSL-FO Rendering for Personalized Documents -- An Extensible Framework for Distributed Testing of MPI Implementations -- A Virtual Test Environment for MPI Development: Quick Answers to Many Small Questions -- Multithreaded Tomographic Reconstruction -- Parallelizing Dense Linear Algebra Operations with Task Queues in Ilc -- ParaLEX: A Parallel Extension for the CPLEX Mixed Integer Optimizer -- Performance Analysis and Tuning of the XNS CFD Solver on Blue Gene/L -- (Sync|Async)?+? MPI Search Engines -- Collective Operations -- A Case for Standard Non-blocking Collective Operations -- Optimization of Collective Communications in HeteroMPI -- Fault Tolerance -- Low Cost Self-healing in MPI Applications -- Fault Tolerant File Models for MPI-IO Parallel File Systems -- Library Internals -- An Evaluation of Open MPI's Matching Transport Layer on the Cray XT -- Improving Reactivity and Communication Overlap in MPI Using a Generic I/O Manager -- Investigations on InfiniBand: Efficient Network Buffer Utilization at Scale -- Message Passing on Hierarchical Machines and Grids -- Improving MPI Support for Applications on Hierarchically Distributed Resources -- MetaLoRaS: A Re-scheduling and Prediction MetaScheduler for Non-dedicated Multiclusters -- Using CMT in SCTP-Based MPI to Exploit Multiple Interfaces in Cluster Nodes -- MPI-I/O -- Analysis of the MPI-IO Optimization Levels with the PIOViz Jumpshot Enhancement -- Extending the MPI-2 Generalized Request Interface -- Transparent Log-Based Data Storage in MPI-IO Applications -- One-Sided -- Analysis of Implementation Options for MPI-2 One-Sided -- MPI-2 One-Sided Usage and Implementation for Read Modify Write Operations: A Case Study with HPCC -- RDMA in the SiCortex Cluster Systems -- Revealing the Performance of MPI RMA Implementations -- PVM and Harness -- Distributed Real-Time Computing with Harness -- Frequent Itemset Mining with Trie Data Structure and Parallel Execution with PVM -- Tools -- Retrospect: Deterministic Replay of MPI Applications for Interactive Distributed Debugging -- Extended MPICC to Generate MPI Derived Datatypes from C Datatypes Automatically -- Timestamp Synchronization for Event Traces of Large-Scale Message-Passing Applications -- Verification of Message Passing Programs -- Verification of Halting Properties for MPI Programs Using Nonblocking Operations -- Correctness Debugging of Message Passing Programs Using Model Verification Techniques -- Practical Model-Checking Method for Verifying Correctness of MPI Programs -- ParSim -- 6th International Special Session on Current Trends in Numerical Simulation for Parallel Engineering Environments New Directions and Work-in-Progress ParSim 2007 -- Gyrokinetic Semi-lagrangian Parallel Simulation Using a Hybrid OpenMP/MPI Programming -- Automatic Parallelization of Object Oriented Models Executed with Inline Solvers -- 3D Parallel Elastodynamic Modeling of Large Subduction Earthquakes -- Posters Abstracts -- Virtual Parallel Machines Through Virtualization: Impact on MPI Executions -- Seshat Collects MPI Traces: Extended Abstract -- Dynamic Optimization of Load Balance in MPI Broadcast -- An Empirical Study of Optimization in Seamless Remote MPI-I/O for Long Latency Network -- Multithreaded and Distributed Simulation of Large Biological Neuronal Networks -- Grid Services for MPI.
