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Titolo	Recent Advances in Parallel Virtual Machine and Message Passing Interface [[electronic resource]] : 12th European PVM/MPI User's Group Meeting, Sorrento, Italy, September 18-21, 2005, Proceedings // edited by Beniamino Di Martino, Dieter Kranzlmüller, Jack Dongarra
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Collana	Programming and Software Engineering ; ; 3666
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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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Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Talks -- New Directions in PVM/Harness Research -- Towards a Productive MPI Environment -- Components of Systems Software for Parallel Systems -- Virtualization in Parallel Distributed Computing -- Tutorials -- Advanced Message Passing and Threading Issues -- Using MPI-2: A Problem-Based Approach -- Algorithms -- Some Improvements to a Parallel Decomposition Technique for Training Support Vector Machines -- Nesting OpenMP in MPI to Implement a Hybrid Communication Method of Parallel Simulated Annealing on a

Cluster of SMP Nodes -- Computing Frequent Itemsets in Parallel Using Partial Support Trees -- A Grid-Aware Branch, Cut and Price Implementation -- An Optimal Broadcast Algorithm Adapted to SMP Clusters -- Efficient Implementation of Allreduce on BlueGene/L Collective Network -- Scalable Fault Tolerant MPI: Extending the Recovery Algorithm -- Hash Functions for Datatype Signatures in MPI -- Extensions and Improvements -- Implementing MPI-IO Shared File Pointers Without File System Support -- An Efficient Parallel File System for Cluster Grids -- Cooperative Write-Behind Data Buffering for MPI I/O -- Hint Controlled Distribution with Parallel File Systems -- Implementing Byte-Range Locks Using MPI One-Sided Communication -- An Improved Algorithm for (Non-commutative) Reduce-Scatter with an Application -- Collective Error Detection for MPI Collective Operations -- Implementing OpenMP for Clusters on Top of MPI -- Designing a Common Communication Subsystem -- Dynamic Interoperable Message Passing -- Analysis of the Component Architecture Overhead in Open MPI -- A Case for New MPI Fortran Bindings -- Design Alternatives and Performance Trade-Offs for Implementing MPI-2 over InfiniBand -- Designing a Portable MPI-2 over Modern Interconnects Using uDAPL Interface -- Experiences, Strategies and Challenges in Adapting PVM to VxWorks TM Hard Real-Time Operating System, for Safety-Critical Software -- MPJ/Ibis: A Flexible and Efficient Message Passing Platform for Java -- Cluster and Grid -- The Open Run-Time Environment (OpenRTE): A Transparent Multi-cluster Environment for High-Performance Computing -- PVM-3.4.4 + IPv6: Full Grid Connectivity -- Utilizing PVM in a Multidomain Clusters Environment -- Enhancements to PVM's BEOLIN Architecture -- Migol: A Fault-Tolerant Service Framework for MPI Applications in the Grid -- Applicability of Generic Naming Services and Fault-Tolerant Metacomputing with FT-MPI -- A Peer-to-Peer Framework for Robust Execution of Message Passing Parallel Programs on Grids -- MGF: A Grid-Enabled MPI Library with a Delegation Mechanism to Improve Collective Operations -- Tools and Environments -- Automatic Performance Analysis of Message Passing Applications Using the KappaPI 2 Tool -- Benchmarking One-Sided Communication with SKaMPI 5 -- A Scalable Approach to MPI Application Performance Analysis -- High-Level Application Specific Performance Analysis Using the G-PM Tool -- ClusterGrind: Valgrinding LAM/MPI Applications -- MPISH2: Unix Integration for MPI Programs -- Ensemble-2: Dynamic Composition of MPMD Programs -- New User-Guided and ckpt-Based Checkpointing Libraries for Parallel MPI Applications, -- Performance -- Performance Profiling Overhead Compensation for MPI Programs -- Network Bandwidth Measurements and Ratio Analysis with the HPC Challenge Benchmark Suite (HPCC) -- A Space and Time Sharing Scheduling Approach for PVM Non-dedicated Clusters -- Efficient Hardware Multicast Group Management for Multiple MPI Communicators over InfiniBand -- Assessing MPI Performance on QsNet II -- Optimised Gather Collectives on QsNet II -- An Evaluation of Implementation Options for MPI One-Sided Communication -- A Comparison of Three MPI Implementations for Red Storm -- Applications -- Probing the Applicability of Polarizable Force-Field Molecular Dynamics for Parallel Architectures: A Comparison of Digital MPI with LAM-MPI and MPICH2 -- Symmetrical Data Sieving for Noncontiguous I/O Accesses in Molecular Dynamics Simulations -- Simulation of Ecologic Systems Using MPI -- Load Balancing and Computing Strategies in Pipeline Optimization for Parallel Visualization of 3D Irregular Meshes -- An Improved Mechanism for Controlling Portable Computers in Limited Coverage Areas -- An MPI

Implementation for Distributed Signal Processing -- A Parallel Exponential Integrator for Large-Scale Discretizations of Advection-Diffusion Models -- Parallel Grid Adaptation and Dynamic Load Balancing for a CFD Solver -- Special Session: ParSim 2005 -- 4th International Special Session on: Current Trends in Numerical Simulation for Parallel Engineering Environments ParSim 2005 -- Applying Grid Techniques to an Octree-Based CSCW Framework -- Parallel Modeling of Transient States Analysis in Electrical Circuits -- The COOLFluid Parallel Architecture -- Calculation of Single-File Diffusion Using Grid-Enabled Parallel Generic Cellular Automata Simulation -- Harnessing High-Performance Computers for Computational Steering.
