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| Nota di contenuto | Large Scale Systems -- A Scalable MPI_Comm_split Algorithm for Exascale Computing -- Enabling Concurrent Multithreaded MPI Communication on Multicore Petascale Systems -- Toward Performance Models of MPI Implementations for Understanding Application Scaling Issues -- PMI: A Scalable Parallel Process-Management Interface for Extreme-Scale Systems -- Run-Time Analysis and Instrumentation for |

Communication Overlap Potential -- Efficient MPI Support for Advanced Hybrid Programming Models -- Parallel Filesystems and I/O -- An HDF5 MPI Virtual File Driver for Parallel In-situ Post-processing -- Automated Tracing of I/O Stack -- MPI Datatype Marshalling: A Case Study in Datatype Equivalence -- Collective Operations -- Design of Kernel-Level Asynchronous Collective Communication -- Network Offloaded Hierarchical Collectives Using ConnectX-2's CORE-Direct Capabilities -- An In-Place Algorithm for Irregular All-to-All Communication with Limited Memory -- Applications -- Massively Parallel Finite Element Programming -- Parallel Zero-Copy Algorithms for Fast Fourier Transform and Conjugate Gradient Using MPI Datatypes -- Parallel Chaining Algorithms -- MPI Internals (I) -- Precise Dynamic Analysis for Slack Elasticity: Adding Buffering without Adding Bugs -- Implementing MPI on Windows: Comparison with Common Approaches on Unix -- Compact and Efficient Implementation of the MPI Group Operations -- Characteristics of the Unexpected Message Queue of MPI Applications -- Fault Tolerance -- Dodging the Cost of Unavoidable Memory Copies in Message Logging Protocols -- Communication Target Selection for Replicated MPI Processes -- Transparent Redundant Computing with MPI -- Checkpoint/Restart-Enabled Parallel Debugging -- Best Paper Awards -- Load Balancing for Regular Meshes on SMPs with MPI -- Adaptive MPI Multirail Tuning for Non-uniform Input/Output Access -- Using Triggered Operations to Offload Collective Communication Operations -- MPI Internals (II) -- Second-Order Algorithmic Differentiation by Source Transformation of MPI Code -- Locality and Topology Aware Intra-node Communication among Multicore CPUs -- Transparent Neutral Element Elimination in MPI Reduction Operations -- Poster Abstracts -- Use Case Evaluation of the Proposed MPIT Configuration and Performance Interface -- Two Algorithms of Irregular Scatter/Gather Operations for Heterogeneous Platforms -- Measuring Execution Times of Collective Communications in an Empirical Optimization Framework -- Dynamic Verification of Hybrid Programs -- Challenges and Issues of Supporting Task Parallelism in MPI.
