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Nota di contenuto	Topic 9: Parallel and Distributed Programming -- Parallel and Distributed Programming -- Transactional Mutex Locks -- Exceptions for Algorithmic Skeletons -- Generators-of-Generators Library with Optimization Capabilities in Fortress -- User Transparent Task Parallel Multimedia Content Analysis -- Parallel Simulation for Parameter Estimation of Optical Tissue Properties -- Topic 10: Parallel Numerical

Algorithms -- Parallel Numerical Algorithms -- Scalability and Locality of Extrapolation Methods for Distributed-Memory Architectures -- CFD Parallel Simulation Using Getfem++ and Mumps -- Aggregation AMG for Distributed Systems Suffering from Large Message Numbers -- A Parallel Implementation of the Jacobi-Davidson Eigensolver and Its Application in a Plasma Turbulence Code -- Scheduling Parallel Eigenvalue Computations in a Quantum Chemistry Code -- Scalable Parallelization Strategies to Accelerate NuFFT Data Translation on Multicores -- Topic 11: Multicore and Manycore Programming -- Multicore and Manycore Programming -- JavaSymphony: A Programming and Execution Environment for Parallel and Distributed Many-Core Architectures -- Scalable Producer-Consumer Pools Based on Elimination-Diffraction Trees -- Productivity and Performance: Improving Consumability of Hardware Transactional Memory through a Real-World Case Study -- Exploiting Fine-Grained Parallelism on Cell Processors -- Optimized On-Chip-Pipelined Mergesort on the Cell/B.E. -- Near-Optimal Placement of MPI Processes on Hierarchical NUMA Architectures -- Parallel Enumeration of Shortest Lattice Vectors -- A Parallel GPU Algorithm for Mutual Information Based 3D Nonrigid Image Registration -- Multi-GPU and Multi-CPU Parallelization for Interactive Physics Simulations -- Long DNA Sequence Comparison on Multicore Architectures -- Adaptive Fault Tolerance for Many-Core Based Space-Borne Computing -- Maestro: Data Orchestration and Tuning for OpenCL Devices -- Multithreaded Geant4: Semi-automatic Transformation into Scalable Thread-ParallelSoftware -- Parallel Exact Time Series Motif Discovery -- Optimized Dense Matrix Multiplication on a Many-Core Architecture -- A Language-Based Tuning Mechanism for Task and Pipeline Parallelism -- A Study of a Software Cache Implementation of the OpenMP Memory Model for Multicore and Manycore Architectures -- Programming CUDA-Based GPUs to Simulate Two-Layer Shallow Water Flows -- Topic 12: Theory and Algorithms for Parallel Computation -- Theory and Algorithms for Parallel Computation -- Analysis of Multi-Organization Scheduling Algorithms -- Area-Maximizing Schedules for Series-Parallel DAGs -- Parallel Selection by Regular Sampling -- Ants in Parking Lots -- Topic 13: High Performance Networks -- High Performance Networks -- An Efficient Strategy for Reducing Head-of-Line Blocking in Fat-Trees -- A First Approach to King Topologies for On-Chip Networks -- Optimizing Matrix Transpose on Torus Interconnects -- Topic 14: Mobile and Ubiquitous Computing -- Mobile and Ubiquitous Computing -- cTrust: TrustAggregation in Cyclic Mobile Ad Hoc Networks -- Maximizing Growth Codes Utility in Large-Scale Wireless Sensor Networks -- @Flood: Auto-Tunable Flooding for Wireless Ad Hoc Networks -- On Deploying Tree Structured Agent Applications in Networked Embedded Systems -- Meaningful Metrics for Evaluating Eventual Consistency -- Caching Dynamic Information in Vehicular Ad Hoc Networks -- Collaborative Cellular-Based Location System.

Sommario/riassunto

Euro-Par is an annual series of international conferences dedicated to the p- motion and advancementof allaspects of parallelcomputing. The major themes can be divided into four broad categories: theory, high-performance, cluster and grid,distributedandmobilecomputing. Thesecategoriescomprise14topicsthat focus on particular issues. The objective of Euro-Paris to provide a forum within which to promote the development of parallel computing both as an industrial technique and an a- demic discipline, extending the frontier of both the state of the art and the state of practice. The main audience for and participants in Euro-Par are researchers inacademicdepartments, governmentlaboratories,andindustrialorganizations. Euro-Par2010 was

the 16th conference in the Euro-Parseries, and was or- nizedbythe Institute forHigh-PerformanceComputingandNetworking(ICAR) of the Italian National Research Council (CNR), in Ischia, Italy. Previous Euro-Parconferencestookplacein Stockholm,Lyon,Passau,Southampton, Toulouse, Munich, Manchester, Padderborn, Klagenfurt, Pisa, Lisbon, Dresden, Rennes, Las Palmas, and Delft. Next year the conference will take place in Bordeaux, France. More information on the Euro-Par conference series and organization is available on the wesite http: //www.europar.org. As mentioned before, the conference was organized in 14 topics. The paper review process for each topic was managed and supervised by a committee of at least four persons: a Global Chair, a Local Chair, and two members. Some speci'c topics with a high number of submissions were managed by a larger committeewithmoremembers.

The'naldecisionsontheacceptanceorrejection ofthesubmitted papersweremadein ameeting ofthe ConferenceCo-chairsand Local Chairs of the topics.