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	Nota di contenuto	Concurrent Systems: Hybrid Object Implementations and Abortable Objects -- Runtime-Aware Architectures -- MPI Thread-Level Checking for MPI+OpenMP Applications -- Event-Action Mappings for Parallel Tools Infrastructures -- Low-Overhead Detection of Memory Access Patterns and Their Time Evolution -- Automatic On-line Detection of MPI Application Structure with Event Flow Graphs -- Online Automated Reliability Classification of Queueing Models for Streaming Processing Using Support Vector Machines -- A Duplicate-Free State-Space Model

for Optimal Task Scheduling -- On the Heterogeneity Bias of Cost Matrices when Assessing Scheduling Algorithms -- Hardware Round-Robin Scheduler for Single-ISA Asymmetric Multi-Core -- Moody Scheduling for Speculative Parallelization -- Allocating Jobs with Periodic Demands -- A Multi–Level Hypergraph Partitioning Algorithm Using Rough Set Clustering -- Non-preemptive Throughput Maximization for Speed-Scaling with Power-Down -- Scheduling Tasks from Selfish Multi-tasks Agents -- Locality and Balance for Communication-Aware Thread Mapping in Multicore Systems -- Concurrent Priority Queues Are not Good Priority Schedulers -- Load Balancing Prioritized Tasks via Work-Stealing -- Optimizing Task Parallelism with Library-Semantics-Aware Compilation -- Data Layout Optimization for Portable Performance -- Automatic Data Layout Optimizations for GPUs -- Performance Impacts with Reliable Parallel File Systems at Exascale Level -- Rapid Tomographic Image Reconstruction via Large-Scale Parallelization -- Software consolidation as an efficient energy and cost Saving Solution for a SaaS/PaaS Cloud Model -- VMPlaceS A Generic Tool to Investigate and Compare VM Placement Algorithms -- A Connectivity Model for Agreement in Dynamic Systems -- DFEP: Distributed Funding-based Edge Partitioning -- PR-STM: Priority Rule Based Software Transactions on the GPU -- Leveraging MPI-3 Shared-Memory Extensions for Efficient PGAS Runtime Systems -- A Practical Transactional Memory Interface -- A Multicore Parallelization of Continuous Skyline Queries on Data Streams -- A Fast and Scalable Graph Coloring Algorithm for Multi-core and Many-core Architectures -- A Composable Deadlock-Free Approach to Object-Based Isolation -- Scalable Data-Driven PageRank: Algorithms, System Issues & Lessons Learned -- How Many Threads Will Be Too Many? On the Scalability of OpenMP Implementations -- Efficient Nested Dissection for Multicore Architectures -- Scheduling Trees of Malleable Tasks for Sparse Linear Algebra -- Elastic Tasks: Unifying Task Parallelism and SPMD Parallelism with an Adaptive Runtime -- Semi-discrete Matrix-Free Formulation of 3D Elastic Full Waveform Inversion Modeling -- 10,000 Performance Models per Minute - Scalability of the UG4 Simulation Framework -- Exploiting Task-Based Parallelism in Bayesian Uncertainty Quantification -- Parallelization of an Advection-Diffusion Problem Arising in Edge Plasma Physics Using Hybrid MPI/OpenMP Programming -- Behavioral Non-Portability in Scientific Numeric Computing -- Fast Parallel Suffix Array on the GPU -- Effective Barrier Synchronization on Intel Xeon Phi Coprocessor -- High Performance Multi-GPU SpMV for Multi-component PDE-based Applications -- Accelerating Lattice Boltzmann Applications with OpenACC -- High-Performance and Scalable Design of MPI-3 RMA on Xeon Phi Clusters -- Improving Performance of Convolutional Neural Networks by Separable Filters on GPU -- Iterative Sparse Triangular Solves for Preconditioning -- Targeting the Parallella -- Systematic Fusion of CUDA Kernels for Iterative Sparse Linear System Solvers -- Efficient Execution of Multiple CUDA Applications using Transparent Suspend, Resume and Migration.

| Sommario/riassunto | This book constitutes the refereed proceedings of the 21st International Conference on Parallel and Distributed Computing, Euro-Par 2015, held in Vienna, Austria, in August 2015. The 51 revised full papers presented together with 2 invited papers were carefully reviewed and selected from 190 submissions. The papers are organized in the following topical sections: support tools and environments; performance modeling, prediction and evaluation; scheduling and load balancing; architecture and compilers; parallel and distributed data management; grid, cluster and cloud computing; distributed systems |

and algorithms; parallel and distributed programming, interfaces and languages; multi- and many-core programming; theory and algorithms for parallel computation; numerical methods and applications; and accelerator computing.