

1. Record Nr.	UNISA996215839903316
Titolo	Euro-Par 2015: Parallel Processing [[electronic resource]] : 21st International Conference on Parallel and Distributed Computing, Vienna, Austria, August 24-28, 2015, Proceedings // edited by Jesper Larsson Träff, Sascha Hunold, Francesco Versaci
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2015
ISBN	3-662-48096-4
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (XXXV, 703 p. 232 illus.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 9233
Disciplina	004.35
Soggetti	Compilers (Computer programs) Operating systems (Computers) Electronic digital computers—Evaluation Computer engineering Computer networks Algorithms Software engineering Compilers and Interpreters Operating Systems System Performance and Evaluation Computer Engineering and Networks Software Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
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, EuroPar 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.
