Record Nr. UNISA996466309103316 Euro-Par 2018: Parallel Processing Workshops [[electronic resource]]: **Titolo** Euro-Par 2018 International Workshops, Turin, Italy, August 27-28, 2018, Revised Selected Papers / / edited by Gabriele Mencagli, Dora B. Heras, Valeria Cardellini, Emiliano Casalicchio, Emmanuel Jeannot, Felix Wolf, Antonio Salis, Claudio Schifanella, Ravi Reddy Manumachu, Laura Ricci, Marco Beccuti, Laura Antonelli, José Daniel Garcia Sanchez, Stephen L. Scott Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 **ISBN** 3-030-10549-0 [1st ed. 2019.] Edizione 1 online resource (XVII, 841 p. 398 illus., 227 illus. in color.) Descrizione fisica Collana Theoretical Computer Science and General Issues., 2512-2029:: 11339 Disciplina 004.65 Soggetti Computer engineering Computer networks Operating systems (Computers) Logic design Artificial intelligence Data protection Computer Engineering and Networks **Operating Systems** Logic Design Computer Communication Networks Artificial Intelligence Data and Information Security Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Auto-DaSP - Workshop on Autonomic Solutions for Parallel and

> Distributed Data Stream Processing -- TPICDS: A Two-phase Parallel Approach for Incremental Clustering of Data Streams -- Cost of Faulttolerance on Data Stream Processing -- Autonomic and Latency-Aware Degree of Parallelism Management in Spar -- Consistency of the Fittest:

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Towards Dynamic Staleness Control for Edge Data Analytics -- A Multilevel Elasticity Framework for Distributed Data Stream Processing --CBDP - Workshop on Container-based Systems for Big Data, Distributed and Parallel Computing -- A Resource Allocation Framework with Qualitative and Quantitative SLA Classes -- Automated Multi-Swarm Networking with Open Baton NFV MANO Framework --The Impact of the Storage Tier: A Baseline Performance Analysis of containerized DBMS -- Towards Vertically Scalable Spark Applications -- COLOC - Workshop on Data Locality -- Progress Thread Placement for Overlapping MPI Non-Blocking Collectives using Simultaneous Multi-Threading -- A Methodology for Handling Data Movements by Anticipation: Position Paper -- Scalable Work-Stealing Load-Balancer for HPC Distributed Memory Systems -- NUMAPROF, A NUMA Memory Profiler -- ASPEN: An Efficient Algorithm for Data Redistribution Between Producer and Consumer Grids -- Euro-EDUPAR - Workshop on Parallel and Distributed Computing Education for Undergraduate Students -- Getting Started with CAPI SNAP: Hardware Development for Software Engineers -- Studying the Structure of Parallel Algorithms as a Key Element of High-Performance Computing Education -- From Mathematical Model to Parallel Execution to Performance Improvement: Introducing Students to a Workflow for Scientific Computing --Integrating Parallel Computing in the Curriculum of the University Politehnica of Bucharest -- F2C-DP - Workshop on Fog-to-Cloud Distributed Processing -- Benefits of a fog-to-cloud approach in proximity marketing -- Multi-tenant Pub/Sub Processing for Real-time Data Streams -- A Review of Mobility Prediction Models Applied in Cloud/Fog Environments -- An Architecture for Resource Management in a Fog-to-Cloud Framework -- Enhancing Service Management Systems with Machine Learning in Fog-to-Cloud Networks -- A knowledge-based IoT Security Checker -- MAD-C: Multi-stage Approximate Distributed Cluster-combining for obstacle detection and localization -- FPDAPP - Workshop on Future Perspective of Decentralised Applications -- A Suite of Tools for the Forensic Analysis of Bitcoin Transactions: Preliminary Report -- On and Off-Blockchain Enforcement Of Smart Contracts -- MaRSChain: Framework for a Fair Manuscript Review System Based on Permissioned Blockchain --Tamper-Proof Volume Tracking in Supply Chains with Smart Contracts -- A blockchain based system to ensure transparency and reliability in food supply chain -- Selecting Effective Blockchain Solutions --HeteroPar - Workshop on Algorithms, Models and Tools for Parallel Computing on Heterogeneous Platforms -- Evaluation through Realistic Simulations of File Replication Strategies for Large Heterogeneous Distributed Systems -- Modeling and Optimizing data transfer in GPU-Accelerated Optical Coherence Tomography -- A Modular Precision Format for decoupling Arithmetic Format and Storage Format --Benchmarking the NVIDIA V100 GPU and Tensor Cores -- SiL: An Approach for Adjusting Applications to Heterogeneous Systems Under Perturbations -- Merging the Publish-Subscribe Pattern with the Shared Memory Paradigm -- Towards Application-Centric Parallel Memories --Fast Heuristic-Based GPU Compiler Sequence Specialization --Accelerating Online Change-Point Detection Algorithm using 10GbE FPGA NIC -- OS-ELM-FPGA: An FPGA-Based Online Sequential Unsupervised Anomaly Detector -- LSDVE - Workshop on Large Scale Distributed Virtual Environments -- The Drivers Behind Blockchain Adoption: The Rationality of Irrational Choices -- Field Experiment on the Performance of an Android-based Opportunistic Network --Distributed computation of mobility patterns in a smart city environment -- Exploiting community detection to recommend privacy

policies in Decentralized Online Social Networks -- ComeHere: exploiting Ethereum for secure sharing of health-care data -- Med-HPC - Workshop on Advances in High-Performance Bioinformatics. Systems Biology -- BaaS - Bioinformatics as a Service --Disaggregating Non-Volatile Memory for Throughput-Oriented Genomics Workloads -- GPU accelerated analysis of Treg-Teff cross regulation in relapsing-remitting multiple sclerosis -- Cross-Environment comparison of a bioinformatics pipeline: perspectives for hybrid computations -- High Performance Computing for Haplotyping: Models and Platforms -- PCDLifeS - Workshop on Parallel and Distributed Computing for Life Sciences: Algorithms, Methodologies and Tools -- Effect of Spatial Decomposition on the Efficiency of k Nearest Neighbors Search in Spatial Interpolation -- Understanding chromatin structure: efficient computational implementation of polymer physics models -- Towards Heterogeneous Network Alignment: Design and Implementation of a large-scale data processing framework -- A Parallel Cellular Automaton Model For Adenocarcinomas in Situ with Java: Study of One Case -- Performance evaluation for a PETSc Parallel-in-Time Solver based on MGRIT algorithm -- RePara - Workshop on Reengineering for Parallelism in Heterogeneous Parallel Platforms -- Programmable HSA Accelerators for Zyng UltraScale+ MPSoC Systems -- Service Level Objectives via C++11 Attributes -- InKS, a Programming Model to Decouple Performance from Semantics in HPC Codes -- Refactoring Loops with Nested IFs for SIMD Extensions without Masked Instructions --Resilience - Workshop on Resiliency in High Performance Computing with Clouds, Grids, and Clusters -- Do moldable applications perform better on failure-prone HPC platforms -- FINJ: A Fault Injection Tool for HPC Systems -- Performance Efficient Multiresilience using Checkpoint Recovery in Iterative Algorithms.

## Sommario/riassunto

This book constitutes revised selected papers from the workshops held at 24th International Conference on Parallel and Distributed Computing, Euro-Par 2018, which took place in Turin, Italy, in August 2018. The 64 full papers presented in this volume were carefully reviewed and selected from 109 submissions. Euro-Par is an annual, international conference in Europe, covering all aspects of parallel and distributed processing. These range from theory to practice, from small to the largest parallel and distributed systems and infrastructures, from fundamental computational problems to full-edged applications, from architecture, compiler, language and interface design and implementation to tools, support infrastructures, and application performance aspects.