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Nota di contenuto	The 2nd International Workshop on Resource AWareness of Systems and Society (RAW 2023) -- Performance and energy aware training of a deep neural network in a multi-GPU environment with power capping -- GPPRMon: GPU Runtime Memory Performance and Power Monitoring

Tool -- Towards Resource-Efficient DNN Deployment for Traffic Object Recognition: From Edge to Fog -- The Implementation of Battery Charging Strategy for IoT Nodes -- subMFL: Compatible subModel Generation for Federated Learning in Device Heterogeneous Environment -- Towards a Simulation as a Service Platform for the Cloud-to-Things Continuum -- Cormas: The Software for Participatory Modelling and its Application for Managing Natural Resources in Senegal -- Asynchronous Many-Task systems for Exascale (AMTE) -- Malleable APGAS Programs and their Support in Batch Job Schedulers -- Task-Level Checkpointing for Nested Fork-Join Programs using Work Stealing -- Making Uintah Performance Portable for Department of Energy Exascale Testbeds -- Benchmarking the Parallel 1D Heat Equation Solver in Chapel, Charm++, C++, HPX, Go, Julia, Python, Rust, Swift, and Java -- PECS 2023 - 2-page report -- Parallel auto-scheduling of counting queries in machine learning applications on HPC systems -- Energy Efficiency Impact of Processing in Memory: A Comprehensive Review of Workloads on the UPMEM Architecture -- Enhancing Supercomputer Performance with Malleable Job Scheduling Strategies -- A Performance Modelling-driven Approach to Hardware Resource Scaling -- Applications and Benefits of UPMEM commercial Massively parallel Processing-In-Memory (PIM) Platform (ABUMPIMP) Minisymposium -- Adaptive HPC Input/Output Systems -- Dynamic Allocations in a Hierarchical Parallel Context -- Designing A Sustainable Serverless Graph Processing Tool on the Computing Continuum -- Diorthotis: A Parallel Batch Evaluator for Programming Assignments -- Experiences and Lessons Learned from PHYSICS: A Framework for Cloud Development with FaaS -- Improved IoT Application Placement in Fog Computing through Postponement -- High-Performance Distributed Computing with Smartphones -- Blockchain-based Decentralized Authority for Complex Organizational Structures Management -- Transparent Remote OpenMP Offloading based on MPI -- DAPHNE Runtime: Harnessing Parallelism for Integrated Data Analysis Pipelines -- Exploring Factors Impacting Data Offloading Performance in Edge and Cloud Environments -- HEAppE Middleware: From desktop to HPC -- Towards Energy-Aware Machine Learning in Geo-Distributed IoT Settings -- OpenCUBE: Building an Open Source Cloud Blueprint with EPI Systems -- BDDC Preconditioning in the Microcard Project -- Online Job Failure Prediction in an HPC system -- Exploring Mapping Strategies for Co-allocated HPC Applications -- A polynomial-time algorithm for detecting potentially unbounded places in a Petri net-based concurrent system -- Data Assimilation with Ocean Models: A Case Study of Reduced Precision and Machine Learning in the Gulf of Mexico -- Massively parallel EEG algorithms for pre-exascale architectures -- Online Job Failure Prediction in an HPC System -- Transitioning to Smart Sustainable Cities Based on Cutting-Edge Technological Improvements -- Algorithm Selection of MPI Collectives Considering System Utilization -- Service Management in Dynamic Edge Environments -- Path Plan Optimisation for UAV Assisted Data Collection in Large Areas -- Efficiently Distributed Federated Learning.

Sommario/riassunto

This book constitutes revised selected papers from the workshops held at the 29th International Conference on Parallel and Distributed Computing, Euro-Par 2023, which took place in Limassol, Cyprus, during August 28–September 1, 2023. The 42 full papers presented in this book together with 11 symposium papers and 14 demo/poster papers were carefully reviewed and selected from 55 submissions. The papers cover covering all aspects of parallel and distributed processing, ranging from theory to practice, from small to the largest parallel and distributed systems and infrastructures, from fundamental

computational problems to applications, from architecture, compiler, language and interface design and implementation, to tools, support infrastructures, and application performance aspects. LNCS 14351: First International Workshop on Scalable Compute Continuum (WSCC 2023). First International Workshop on Tools for Data Locality, Power and Performance (TDLPP 2023). First International Workshop on Urgent Analytics for Distributed Computing (QuickPar 2023). 21st International Workshop on Algorithms, Models and Tools for Parallel Computing on Heterogeneous Platforms (HETEROPAR 2023). LNCS 14352: Second International Workshop on Resource AWareness of Systems and Society (RAW 2023). Third International Workshop on Asynchronous Many-Task systems for Exascale (AMTE 2023). Third International Workshop on Performance and Energy-efficiency in Concurrent and Distributed Systems (PECS 2023) First Minisymposium on Applications and Benefits of UPMEM commercial Massively Parallel Processing-In-Memory Platform (ABUMPIMP 2023). First Minsymposium on Adaptive High Performance Input / Output Systems (ADAPIO 2023). .