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Soggetti	Electronic data processing - Distributed processing Parallel processing (Electronic computers)
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Heterogeneous System (1) -- Towards Priority-Flexible Task Mapping for Heterogeneous Multi-Core NUMA systems -- Multi-GPU Scaling of a Conservative Weakly Compressible Solver for Large-scale Two-phase Flow Simulation -- Improving the Performance of Lattice Boltzmann Method with Pipelined Algorithm on A Heterogeneous Multi-zone Processor -- FPGA -- DEEPFAKE CLI: Accelerated Deepfake Detection using FPGAs -- Memory access optimization for former process of pencil drawing style image conversion in High-level Synthesis -- Word2Vec FPGA Accelerator Based on Spatial and Temporal Parallelism -- HPC & AI -- Analyzing I/O Performance of a Hierarchical HPC Storage System for Distributed Deep Learning -- An Advantage Actor-Critic Deep Reinforcement Learning Method for Power Management in HPC Systems -- An AutoML Based Algorithm for Performance Prediction in HPC Systems -- Embedded systems & Communication -- Edge-Gateway Intrusion Detection for Smart Home -- Energy-Delay Tradeoff in Parallel Task Allocation and Execution for Autonomous Platooning Applications -- A Reservation-based List Scheduling for Embedded Systems with Memory Constraints -- Formalization and Verification of SIP Using CSP -- Blockchain -- Towards a Blockchain and Fog-Based Proactive Data Distribution Framework for ICN -- Research on user

influence weighted scoring algorithm incorporating incentive mechanism -- BloodMan-Chain: A Management of Blood and Its Products Transportation based on Blockchain Approach -- Deep Learning -- A Systematic Comparison on Prevailing Intrusion Detection Models -- Enhancing Resolution of Inferring Hi-C Data Integrating U-Net and ResNet Networks -- Detecting Network Intrusions with Resilient Approaches Based on Convolutional Neural Networks -- Quantum Computing & Programming Language -- Analysis of Precision Vectors for Ising-based Linear Regression -- Evaluating and Analyzing Irregular Tree Search in the Tascell and HOPE Parallel Programming Languages -- Best Papers -- Distributed Parallel Tall-Skinny QR factorization: Performance Evaluation of Various Algorithms on Various Systems -- A Partitioned Memory Architecture with Prefetching for Efficient Video Encoders -- A Hardware Trojan Exploiting Coherence Protocol on NoCs -- A System-Wide Communication to Couple Multiple MPI Programs for Heterogeneous Computing -- Heterogeneous System (2) -- A task-parallel runtime for heterogeneous multi-node vector systems -- Accelerating Radiative Transfer Simulation on NVIDIA GPUs with OpenACC -- QR Factorization of Block Low-Rank Matrices on Multi-Instance GPU -- Equivalence Checking & Model checking -- Equivalence Checking of Code Transformation by Numerical and Symbolic Approaches -- MEA: A Framework for Model Checking of Mutual Exclusion Algorithms Focusing on Atomicity -- Interconnect -- A High-Radix Non-Random Shortcut Network Topology for Efficient Collective Communication -- Fault Tolerance and Packet Latency of Peer Fat-Trees -- Accelerating Imbalanced Many-to-Many Communication with Systematic Delay Insertion -- Optimization (1) -- Optimizing Depthwise Convolutions on ARMv8 Architecture -- A Profiling-based Approach to Cache Partitioning of Program Data -- Optimization (2) -- Memory Bandwidth Conservation for SpMV Kernels through Adaptive Lossy Data Compression -- SimdFSM: An Adaptive Vectorization of Finite State Machines for Speculative Execution -- Privacy -- Broad Learning Inference Based on Fully Homomorphic Encryption -- Application of probabilistic common set in the open world set for vertical federated learning -- Workflow -- Towards a Standard Process Management Infrastructure for Workflows. .

Sommario/riassunto

This book constitutes the proceedings of the 23rd International Conference on Parallel and Distributed Computing, Applications, and Technologies, PDCAT 2022, which took place in Sendai, Japan, during December 7-9, 2022. The 24 full papers and 16 short papers included in this volume were carefully reviewed and selected from 95 submissions. The papers are categorized into the following topical sub-headings: Heterogeneous System (1; HPC & AI; Embedded systems & Communication; Blockchain; Deep Learning; Quantum Computing & Programming Language; Best Papers; Heterogeneous System (2); Equivalence Checking & Model checking; Interconnect; Optimization (1); Optimization (2); Privacy; and Workflow.
