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	Nota di contenuto	Architecture, Networks, and Storage -- Microarchitecture of a Configurable High-radix Router for Exascale Interconnect -- BluesMPI: Efficient MPI Non-blocking Alltoall Offloading Designs on Modern BlueField Smart NICs -- Lessons Learned from Accelerating Quicksilver on Programmable Integrated Unified Memory Architecture (PIUMA) and How that's Different from CPU -- A Hierarchical Task Scheduler for Heterogeneous Computing -- Machine Learning, AI, and Emerging Technologies -- Auto-Precision Scaling for Distributed Deep Learning

-- FPGA Acceleration of Number Theoretic Transform -- Designing a ROCm-aware MPI Library for AMD GPUs: Early Experiences -- A Tunable Implementation of Quality-of-Service Classes for HPC Networks -- Scalability of Streaming Anomaly Detection in an Unbounded Key Space using Migrating Threads -- HTA: A Scalable High-Throughput Accelerator for Irregular HPC Workloads -- Proctor: A Semi-Supervised Performance Anomaly Diagnosis Framework for Production HPC Systems.-HPC Algorithms and Applications -- COSTA: Communication-Optimal Shuffle and Transpose Algorithm with Process Relabeling -- Enabling AI-Accelerated Multiscale Modeling of Thrombogenesis at Millisecond and Molecular Resolutions on Supercomputers -- Evaluation of the NEC Vector Engine for Legacy CFD Codes -- Distributed Sparse Block Grids on GPUs -- iPUG: Accelerating Breadth-First Graph Traversals using Manycore Graphcore IPUs -- Performance Modeling, Evaluation, and Analysis -- Optimizing GPU-enhanced HPC System and Cloud Procurements for Scientific Workloads -- A Performance Analysis of Modern Parallel Programming Models Using a Compute-Bound Application -- Analytic Modeling of Idle Waves in Parallel Programs: Communication, Cluster Topology, and Noise Impact -- Performance of the Supercomputer Fugaku for Breadth-First Search in Graph500 Benchmark -- Under the Hood of SYCL - An Initial Performance Analysis With an Unstructured-mesh CFD Application -- Characterizing Containerized HPCApplication Performance at Petascale on CPU and GPU Architectures -- Ubiquitous Performance Analysis -- Programming Environments and Systems Software -- Artemis: Automatic Runtime Tuning of Parallel Execution Parameters Using Machine Learning.

| Sommario/riassunto | This book constitutes the refereed proceedings of the 36th International Conference on High Performance Computing, ISC High Performance 2021, held virtually in June/July 2021. The 24 full papers presented were carefully reviewed and selected from 74 submissions. The papers cover a broad range of topics such as architecture, networks, and storage; machine learning, AI, and emerging technologies; HPC algorithms and applications; performance modeling, evaluation, and analysis; and programming environments and systems software. |