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Nota di contenuto	-- High Performance Computing Track. -- Impact of job scheduling policy changes on user behaviour and system response: The case of the

Santos Dumont supercomputer in Brazil. -- A Study of Performance Portability in Plasma Physics Simulations. -- High performance computing for auto supervised machine learning training: parallel-distributed implementation of the Word2Vec algorithm for training word embeddings. -- A Comprehensive Analysis of Process Energy Consumption on Multi-Socket Systems with GPUs. -- Enhancing Reverse Time Migration Simulations in HPC Systems through I/O and Computation Overlapping. -- Evaluation of Computational and Power Performance in Matrix Multiplication Libraries - MKL Vs cuBLAS. -- A User-centric Evaluation Methodology for Informed Provisioning of High Performance Computing Resources in Academic Institutions. -- EfiMon: A Process Analyser for Granular Power Consumption Prediction. -- Leveraging CPU-FPGA Co-design for Matrix Profile Computation. -- Artificial Intelligence at HPC Scale Track. -- Web system for recognizing actions of physical violence in urban spaces using CNN with Transfer Learning. -- Quantized SG-MCMC for Bayesian Deep Posterior Compression. -- No Plankton Left Behind: Preliminary results on massive plankton image recognition. -- Machine Learning Regression-based Prediction for Improving Performance and Energy Consumption in HPC platforms. -- A new computational framework for crop yield estimation and phenological monitoring. -- Histopathology Image Augmentation through StyleGAN2-ADA. -- High Performance Computing Applications Track. -- Strategies to Reduce Memory Consumption in Software Quantum Computing Simulators. -- Adaptive Edge-Based AIoT Architecture for Efficient Retraining and Sustainable Monitoring of Ephemeral Streams. -- Multi-GPU Tomographic Reconstructions of Large Volumes in the Frequency Domain. -- Accelerating tomographic artifact removal using a multi-GPU system. -- A parallel multi-threading global energy balance for a room thermal analysis in an unsteady state. -- Parallel Computing Strategies in WRF: The Role of MPI, OpenMP, & NUMA Affinity.

Sommario/riassunto

This book constitutes the refereed revised selected papers of the 11th Latin American Conference on High Performance Computing, CARLA 2024, held in Santiago de Chile, Chile, during September 30–October 4, 2024. The 21 full papers included in this book were carefully reviewed and selected from 42 submissions. They were organized in topical sections as follows: High Performance Computing Track; Artificial Intelligence at HPC Scale Track; High Performance Computing Applications Track.
