1.	Record Nr.	UNINA9910637738203321
	Titolo	High Performance Computing : 9th Latin American Conference, CARLA 2022, Porto Alegre, Brazil, September 26–30, 2022, Revised Selected Papers / / edited by Philippe Navaux, Carlos J. Barrios H., Carla Osthoff, Ginés Guerrero
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
	ISBN	9783031238215 3031238214
	Edizione	[1st ed. 2022.]
	Descrizione fisica	1 online resource (246 pages)
	Collana	Communications in Computer and Information Science, , 1865-0937 ; ; 1660
	Disciplina	004.11
	Soggetti	Computer engineering Computer networks Social sciences - Data processing Artificial intelligence Microprogramming Computer input-output equipment Computer Engineering and Networks Computer Application in Social and Behavioral Sciences Artificial Intelligence Control Structures and Microprogramming Input/Output and Data Communications
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	A Comparative Evaluation of Parallel Programming Python Tools for Particle-in-cell on Symmetric Multiprocessors -- Accelerating GNN Training on CPU+Multi-FPGA Heterogeneous Platform -- Implementing a GPU-Portable Field Line Tracing Application with OpenMP Offload -- Quantitative Characterization of Scientific Computing Clusters -- Towards parameter-based profiling for MARE2DEM performance modeling -- Time-Power-Energy Balance of BLAS kernels in modern FPGAs -- Improving Boundary Layer Predictions Using Parametric

Physics-Aware Neural Networks -- Towards Fire Identification Model in Satellite Images Using HPC Embedded Systems and AI -- A Machine Learning-based Missing Data Imputation with FHIR Interoperability Approach in Sepsis Prediction -- Understanding the Energy Consumption of HPC Scale Artificial Intelligence -- Tracking the COVID-19 Emotional Response in Mexico -- Multi-GPU 3-D Reverse Time Migration with Minimum I/O -- ParslRNA-Seq: an efficient and scalable RNAseq analysis workflow for studies of differentiated gene expression -- Refactoring an electric-market simulation software for massively parallel computations -- Nearly Quantum Computing by Simulation -- Functionality testing in the automation of scientific application workflows in an HPC environment.

Sommario/riassunto	This book constitutes the proceedings of the 9th Latin American Conference on High Performance Computing, CARLA 2022, held in Porto Alegre, Brazil, in September 2022. The 16 full papers presented in this volume were carefully reviewed and selected from 56 submissions. CARLA, the Latin American High Performance Computing Conference, is an international academic meeting aimed at providing a forum to foster the growth and strength of the High Performance Computing (HPC) community in Latin America and the Caribbean through the exchange and dissemination of new ideas, techniques, and research in HPC and its application areas.