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Collana	Embedded multi-core systems
Altri autori (Persone)	SchmidtBertil
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front cover; Contents; Editor; Contributors; Chapter 1: Algorithms for Bioinformatics; Chapter 2: Introduction to GPGPUs and Massively Threaded Programming; Chapter 3: FPGA: Architecture and Programming; Chapter 4: Parallel Algorithms for Alignments on the Cell BE; Chapter 5: Orchestrating the Phylogenetic Likelihood Function on Emerging Parallel Architectures; Chapter 6: Parallel Bioinformatics Algorithms for CUDA-Enabled GPUs; Chapter 7: CUDA Error Correction Method for High-Throughput Short-Read Sequencing Data; Chapter 8: FPGA Acceleration of Seeded Similarity Searching; Chapter 9: Seed-Based Parallel Protein Sequence Comparison Combining Multithreading, GPU, and FPGA Technologies; Chapter 10: Database Searching with Profile-Hidden Markov Models on Reconfigurable and Many-Core Architectures; Chapter 11: COPACOBANA: A Massively Parallel FPGA-Based Computer Architecture; Chapter 12: Accelerating String Set Matching for Bioinformatics Using FPGA Hardware; Chapter 13: Reconfigurable Neural System and Its Application to Dimeric Protein Binding Site Identification; Chapter 14: Parallel FPGA Search Engine for Protein Identification; Index; Back cover
Sommario/riassunto	New sequencing technologies have broken many experimental barriers to genome scale sequencing, leading to the extraction of huge quantities of sequence data. This expansion of biological databases

established the need for new ways to harness and apply the astounding amount of available genomic information and convert it into substantive biological understanding. A compilation of recent approaches from prominent researchers, Bioinformatics: High Performance Parallel Computer Architectures discusses how to take advantage of bioinformatics applications and algorithms o

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