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Nota di bibliografia	Includes bibliographical references and index
Nota di contenuto	Introduction - HPC architecture 1: systems and technologies - Commodity clusters - Benchmarking - The essential resource management - Symmetric multiprocessor architecture - The essential OpenMP - The Essential MPI - Parallel algorithms - Libraries - Operating systems - Visualization - Performance monitoring - Debugging - Accelerator architecture - The essential OpenACC - Mass storage - File systems - MapReduce - Checkpointing - Next steps and beyond
Sommario/riassunto	High Performance Computing: Modern Systems and Practices is a fully comprehensive and easily accessible treatment of high performance computing, covering fundamental concepts and essential knowledge while also providing key skills training. With this book, domain scientists will learn how to use supercomputers as a key tool in their quest for new knowledge. In addition, practicing engineers will discover how supercomputers can employ HPC systems and methods to the design and simulation of innovative products, and students will begin their careers with an understanding of possible directions for future research and development in HPC. Those who maintain and administer commodity clusters will find this textbook provides essential coverage

of not only what HPC systems do, but how they are used. -- Provided
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