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Descrizione fisica	1 online resource (240 p.)
Collana	Chapman & Hall/CRC computational science series
Altri autori (Persone)	WagenbrethGene
Disciplina	004.1/1
Soggetti	High performance computing Supercomputers - Programming Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	A Chapman & Hall book.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front cover; Contents; Introduction; Chapter 1. Multicore Architectures; Chapter 2. The MPP; Chapter 3. How Compilers Optimize Programs; Chapter 4. Parallel Programming Paradigms; Chapter 5. A Strategy for Porting an Application to a Large MPP System; Chapter 6. Single Core Optimization; Chapter 7. Parallelism across the Nodes; Chapter 8. Node Performance; Chapter 9. Accelerators and Conclusion; Appendix A: Common Compiler Directives; Appendix B: Sample MPI Environment Variables; References; Back cover
Sommario/riassunto	High Performance Computing: Programming and Applications presents techniques that address new performance issues in the programming of high performance computing (HPC) applications. Omitting tedious details, the book discusses hardware architecture concepts and programming techniques that are the most pertinent to application developers for achieving high performance. Even though the text concentrates on C and Fortran, the techniques described can be applied to other languages, such as C++ and Java. Drawing on their experience with chips from AMD and systems, interconnects, and software from C