

1. Record Nr.	UNINA9910787928703321
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Titolo	Using MPI : portable parallel programming with the Message-Passing-Interface / / William Gropp, Ewing Lusk, and Anthony Skjellum
Pubbl/distr/stampa	Cambridge, Massachusetts : , : MIT Press, , [2014] [Piscataqay, New Jersey] : , : IEEE Xplore, , [2014]
ISBN	0-262-32660-4
Edizione	[Third edition.]
Descrizione fisica	1 online resource (337 p.)
Collana	Scientific and engineering computation
Disciplina	005.2/75
Soggetti	Parallel programming (Computer science) Parallel computers - Programming Computer interfaces
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	This book offers a thoroughly updated guide to the MPI (Message-Passing Interface) standard library for writing programs for parallel computers. Since the publication of the previous edition of Using MPI, parallel computing has become mainstream. Today, applications run on computers with millions of processors; multiple processors sharing memory and multicore processors with multiple hardware threads per core are common. The MPI-3 Forum recently brought the MPI standard up to date with respect to developments in hardware capabilities, core language evolution, the needs of applications, and experience gained over the years by vendors, implementers, and users. This third edition of Using MPI reflects these changes in both text and example code. The book takes an informal, tutorial approach, introducing each concept through easy-to-understand examples, including actual code in C and Fortran. Topics include using MPI in simple programs, virtual topologies, MPI datatypes, parallel libraries, and a comparison of MPI with sockets. For the third edition, example code has been brought up to date; applications have been updated; and references reflect the recent attention MPI has received in the literature. A companion volume, Using Advanced MPI, covers more advanced topics, including

