

1. Record Nr.	UNINA9910782557403321
Titolo	Annual review of scalable computing . Volume 4 [[electronic resource] /] / editor Yuen Chung Kwong
Pubbl/distr/stampa	Singapore, : Singapore University Press, : World Scientific, c2002
ISBN	1-281-92965-4 9786611929657 981-277-743-1
Descrizione fisica	1 online resource (299 p.)
Collana	Series on scalable computing ; ; 4
Altri autori (Persone)	YuenC. K
Disciplina	004
Soggetti	High performance computing Parallel processing (Electronic computers)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Contents ; 1 Experiences with Shared Virtual Memory on System Area Network Clusters: System Simulation Implementation and Emulation ; 1.1 Introduction ; 1.2 Overall Methodology and Results ; 1.2.1 System Simulation ; 1.2.2 System Implementation ; 1.2.3 System Emulation 1.3 System Simulation 1.3.1 Simulation Environment ; 1.3.2 Methodology ; 1.3.3 Applications ; 1.3.4 Effects of Communication Parameters ; 1.3.5 Limitations on Application Performance ; 1.3.6 Degree of Clustering ; 1.4 System Implementation 1.4.1 Network Interface and SVM Protocol Extensions 1.4.2 Experimental Testbed ; 1.4.3 Applications ; 1.4.4 Results ; 1.4.5 Remaining bottlenecks ; 1.5 System Emulation ; 1.5.1 Emulation infrastructure ; 1.5.2 Impact of Fast Interconnection Networks 1.5.3 Impact of Wide CC-NUMA Nodes 1.6 Discussion on Methodology ; 1.7 Related Work ; 1.8 Conclusions ; 1.9 Acknowledgments ; 1.10 Bibliography ; 2 Average-Case Scalability Analysis

of Parallel Computations			
2.1 Introduction		; 2.1.1 Motivation	; 2.1.2
Overview of the Chapter			
2.2 Scalability of Parallel Computations			
2.2.1 Isoefficiency Scalability			; 2.2.2 Isospeed
Scalability		; 2.2.3 Average-Case Scalability	
; 2.3 Task Precedence Graphs on Multiprocessors			
; 2.3.1 A Probabilistic Model			; 2.3.2 Independent
Tasks		; 2.3.3 Dependent Tasks	
2.3.4 Iterative Computations			

---

Sommario/riassunto

A collection of seven long articles, this book comprehensively discusses significant projects in scalable computing in various research organizations around the world. It represents the quantitative and qualitative growth of work in the area. *Contents:*

- Experiences with Shared Virtual Memory on System Area Network Clusters: System Simulation, Implementation, and Emulation
  - Average-Case Scalability Analysis of Parallel Computations
  - Parallel IO Prefetching and Caching
  - A C++/Tuple-Lock Implementation for Distributed Objects
  - Static Data Allocation a
-