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Titolo	Cloud Computing for Data-Intensive Applications // edited by Xiaolin Li, Judy Qiu
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Descrizione fisica	1 online resource (425 p.)
Disciplina	004 004.6 005.7 005.74
Soggetti	Computers Computer networks Application software Database management Information Systems and Communication Service Computer Communication Networks Information Systems Applications (incl. Internet) Database Management
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	Scalable Deployment of a LIGO Physics Application on Public Clouds: Workflow Engine and Resource Provisioning Techniques -- The FutureGrid Testbed for Big Data -- Cloud Networking to Support Data Intensive Applications -- IaaS cloud benchmarking: approaches, challenges, and experience -- Adaptive Workload Partitioning and Allocation for Data Intensive Scientific Applications -- Federating Advanced CyberInfrastructures with Autonomic Capabilities -- Executing Storm Surge Ensembles on PAAS Cloud -- Migrating Scientific Workflow Management Systems from the Grid to the Cloud -- Efficient Task-Resource Matchmaking Using Self-Adaptive Combinatorial Auction -- Cross-Phase Optimization in MapReduce -- DRAW: A New Data-gRouping-AWare Data Placement Scheme for Data

Intensive Applications with Interest Locality -- Maiter: An Asynchronous Graph Processing Framework for Delta-based Accumulative Iterative Computation -- GPU-Accelerated Cloud Computing Data-Intensive Applications -- Big Data Storage and Processing on Azure Clouds: Experiments at Scale and Lessons Learned -- Storage and Data Lifecycle Management in Cloud Environments with FRIEDA -- DTaaS: Data Transfer as a Service in the Cloud -- Supporting a Social Media Observatory with Customizable Index Structures — Architecture and Performance.

Sommario/riassunto

This book presents a range of cloud computing platforms for data-intensive scientific applications. It covers systems that deliver infrastructure as a service, including: HPC as a service; virtual networks as a service; scalable and reliable storage; algorithms that manage vast cloud resources and applications runtime; and programming models that enable pragmatic programming and implementation toolkits for eScience applications. Many scientific applications in clouds are also introduced, such as bioinformatics, biology, weather forecasting and social networks. Most chapters include case studies. Cloud Computing for Data-Intensive Applications targets advanced-level students and researchers studying computer science and electrical engineering. Professionals working in cloud computing, networks, databases and more will also find this book useful as a reference.
