1.	Record Nr.	UNINA9910785244503321
	Autore	Magoules F (Frederic)
	Titolo	Fundamentals of grid computing : theory, algorithms and technologies / / Frederic Magoules
	Pubbl/distr/stampa	Boca Raton : , : Chapman & Hall/CRC, , 2009
	ISBN	0-429-16608-7 1-4665-3242-4 1-4398-0368-4
	Descrizione fisica	1 online resource (323 p.)
	Collana	Chapman & Hall/CRC numerical analysis and scientific computing
	Classificazione	ST 205
	Disciplina	004/.36
	Soggetti	Computational grids (Computer systems)
	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	Cover; Title; Copyright; Contents; List of Figures; List of Tables; Foreword; Preface; Chapter 1: Grid computing overview; Chapter 2: Synchronization protocols for sharing resources in grid environments; Chapter 3: Data replication in grid environments; Chapter 4: Data management in grids; Chapter 5: Future of grids resources management; Chapter 6: Fault-tolerance and availability awareness in computational grids; Chapter 7: Fault tolerance for distributed scheduling in grids; Chapter 8: Broadcasting for grids; Chapter 9: Load balancing algorithms for dynamic networks Appendix A: Implementation of the replication strategies in OptorSimAppendix B: Implementation of the simulator for the distributed scheduling model; Glossary; Author Index
	Sommario/riassunto	The integration and convergence of state-of-the-art technologies in the grid have enabled more flexible, automatic, and complex grid services to fulfill industrial and commercial needs, from the LHC at CERN to meteorological forecasting systems. Fundamentals of Grid Computing: Theory, Algorithms and Technologies discusses how the novel technologies of semantic web and workflow have been integrated into the grid and grid services. The book explains how distributed mutual exclusion algorithms offer solutions to transmission and control processes. It also address