1.	Record Nr.	UNINA9910450897203321
	Titolo	Parallel finite-difference time-domain method / / Wenhua Yu [and others]
	Pubbl/distr/stampa	Boston, Massachusetts : , : Artech House, , ©2006 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2006]
	ISBN	1-59693-086-1
	Descrizione fisica	1 online resource (272 p.)
	Collana	Artech House electromagnetic analysis series
	Altri autori (Persone)	YuWenhua
	Disciplina	537
	Soggetti	Electromagnetism - Data processing Finite differences - Data processing Parallel programming (Computer science) Time-domain analysis Electronic books.
	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 and index.
	Nota di contenuto	Parallel Finite-Difference Time-Domain Method; Contents; Preface; FDTD Method; Chapter 2 Boundary Conditions; Chapter 3 Improvement of the FDTD; Chapter 4 Excitation Source; Chapter 5 Data Collection and Post-Processing; Chapter 6 Introduction to Parallel Computing Systems; Chapter 7 Parallel FDTD Method; Chapter 8 Illustrative Engineering Applications; Chapter 9 FDTD Analysis of Bodies of Revolution; Chapter 10 Parallel BOR/FDTD; Appendix A Introduction to Basic MPI Functions; Appendix B PC Cluster-Building Techniques; List of Notations; About the Authors; Index.
	Sommario/riassunto	The finite-difference time-domain (FTDT) method has revolutionized antenna design and electromagnetics engineering. This book raises the FDTD method to the next level by empowering it with the vast capabilities of parallel computing. It shows engineers how to exploit the natural parallel properties of FDTD to improve the existing FDTD method and to efficiently solve more complex and large problem sets. Professionals learn how to apply open source software to develop parallel software and hardware to run FDTD in parallel for their projects. The book features hands-on examples that illustrate th.