

1. Record Nr.	UNINA9910450897203321
Titolo	Parallel finite-difference time-domain method // Wenhua Yu [and others]
Pubbl/distr/stampa	Boston, Massachusetts : , : Artech House, , ©2006 [Piscataway, 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 (FDTD) 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.

2. Record Nr.	UNINA9910483138003321
Titolo	Formal Methods for Industrial Critical Systems : 18th International Workshop, FMICS 2013, Madrid, Spain, September 23-24, 2013, Proceedings // edited by Michael Dierkes, Charles Pecheur
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2013
ISBN	3-642-41010-3
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (XIV, 199 p. 46 illus.)
Collana	Programming and Software Engineering, , 2945-9168 ; ; 8187
Disciplina	004.0151
Soggetti	Software engineering Computer science Computers, Special purpose Machine theory Software Engineering Computer Science Logic and Foundations of Programming Special Purpose and Application-Based Systems Formal Languages and Automata Theory Theory of Computation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Formal Methods for the Analysis of Critical Control Systems Models: Combining Non-linear and Linear Analyses -- HyRev: A Tool for the Automatic Generation of Real-Time Routines for Enabling Fail-Safe Control in a Class of Safety-Critical Embedded Systems Using Backwards Reachability Analysis -- An Outline Workflow for Practical Formal Verification from Software Requirements to Object Code -- Boolean Quantifier Elimination for Automotive Configuration -- A Case Study -- Study on the Barriers to the Industrial Adoption of Formal Methods -- On the Effectiveness of Assertion-Based Verification in an Industrial Context -- Complex Digital System Design: A Methodology and Its Application to Medical Implants -- Formal Analysis of the ACE Specification for Cache Coherent Systems-on-Chip -- Predicate Abstraction for Programmable Logic Controllers -- High-Level

Guidance for Managers Deploying Formal Methods in Their Organisation -- Auditing User-Provided Axioms in Software Verification Conditions -- Formal Reliability Analysis of Protective Relays in Power Distribution Systems -- Specification and Verification Using Alloy of Optimistic Access Control for Distributed Collaborative Editors.

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Sommario/riassunto

This book constitutes the thoroughly refereed conference proceedings of the 18th International Workshop on Formal Methods for Industrial Critical Systems, FMICS 2013, held in Madrid, Spain, in September 2013. The 13 papers presented were carefully selected from 25 submissions and cover topics such as design, specification, code generation and testing based on formal methods, methods, techniques and tools to support automated analysis, certification, debugging, learning, optimization and transformation of complex, distributed, dependable, real-time systems and embedded systems, verification and validation methods, tools for the development of formal design descriptions, case studies and experience reports on industrial applications of formal methods, impact of the adoption of formal methods on the development process and associated costs, application of formal methods in standardization and industrial forums.

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