1. Record Nr. UNINA990003195770403321

Autore	Hewitt, John P.
Titolo	Social stratification and deviant behavior / John P. Hewitt
Pubbl/distr/stampa	New York : Random House, c1970
Descrizione fisica	VIII, 176 p. ; 21 cm
Locazione	SES
Collocazione	20120 HEW
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA990000637000403321

Autore	Höft, Hartmut F. W.
Titolo	COMPUTING WITH MATHEMATICA / HOFT H.F.W. - HOFT M.
Pubbl/distr/stampa	San Diego : Academic Press, 1998
ISBN	0-12-351660-9
Locazione	DINSC
Collocazione	07 H-484 MU.
Lingua di pubblicazione	Italiano
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Titolo	Advances in FDTD computational electrodynamics : photonics and nanotechnology / / Allen Taflove, editor ; Ardavan Oskooi and Steven G. Johnson, Coeditors
Pubbl/distr/stampa	Boston : , : Artech House, , 2013 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2013]
ISBN	1-60807-171-5
Descrizione fisica	1 online resource (639 p.)
Collana	Artech House antennas and propagation library
Disciplina	537.6
Soggetti	Nanophotonics Maxwell equations - Numerical solutions Photonics - Mathematical models
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Nota di contenuto	""Advances in FDTD Computational Electrodynamics Photonics and Nanotechnology""; ""Contents""; ""Preface""; ""Chapter 1 Parallel-Processing Three-Dimensional Staggered-Grid Local-Fourier-Basis PSTD Technique""; ""1.1 INTRODUCTION""; ""1.2 MOTIVATION""; ""1.3 LOCAL FOURIER BASIS AND OVERLAPPING DOMAIN DECOMPOSITION""; ""1.4 KEY FEATURES OF THE SL-PSTD TECHNIQUE""; ""1.4.1 FFT on a Local Fourier Basis""; ""1.4.2 Absence of the Gibbs Phenomenon Artifact""; ""1.5 TIME-STEPPING RELATIONS FOR DIELECTRIC SYSTEMS""; ""1.6 ELIMINATION OF NUMERICAL PHASE VELOCITY ERROR FOR A MONOCHROMATIC EXCITATION"" ""1.7 TIME-STEPPING RELATIONS WITHIN THE PERFECTLY MATCHED LAYER ABSORBING OUTER BOUNDARY""""1.8 REDUCTION OF THE NUMERICAL ERROR IN THE NEAR-FIELD TO FAR-FIELD TRANSFORMATION""; ""1.9 IMPLEMENTATION ON A DISTRIBUTED-MEMORY SUPERCOMPUTING CLUSTER""; ""1.10 VALIDATION OF THE SL-PSTD TECHNIQUE""; ""1.10.1 Far-Field Scattering by a Plane-Wave-Illuminated Dielectric Sphere""; ""1.10.2 Far-Field Radiation from an Electric Dipole Embedded within a Double-Layered Concentric Dielectric Sphere""; ""1.11 SUMMARY""; ""REFERENCES""

""Chapter 2 Unconditionally Stable Laguerre Polynomial-Based FDTD Method""""2.1 INTRODUCTION""; ""2.2 FORMULATION OF THE CONVENTIONAL 3-D LAGUERRE-BASED FDTD METHOD""; ""2.3 FORMULATION OF AN EFFICIENT 3-D LAGUERRE-BASED FDTD METHOD""; ""2.4 PML ABSORBING BOUNDARY CONDITION""; ""2.5 NUMERICAL RESULTS""; ""2.5.1 Parallel-Plate Capacitor: Uniform 3-D Grid""; ""2.5.2 Shielded Microstrip Line: Graded Grid in One Direction""; ""2.5.3 PML Absorbing Boundary Condition Performance""; ""2.6 SUMMARY AND CONCLUSIONS""; ""REFERENCES""
""Chapter 3 Exact Total-Field/Scattered-Field Plane-WaveSource Condition""""3.1 INTRODUCTION""; ""3.2 DEVELOPMENT OF THE EXACT TF/SF FORMULATION FOR FDTD""; ""3.3 BASIC TF/SF FORMULATION""; ""3.4 ELECTRIC AND MAGNETIC CURRENT SOURCES AT THE TF/SF INTERFACE""; ""3.5 INCIDENT PLANE-WAVE FIELDS IN A HOMOGENEOUS BACKGROUND MEDIUM""; ""3.6 FDTD REALIZATION OF THE BASIC TF/SF FORMULATION""; ""3.7 ON CONSTRUCTING AN EXACT FDTD TF/SF PLANE-WAVE SOURCE""; ""3.8 FDTD DISCRETE PLANE-WAVE SOURCE FOR THE EXACT TF/SF FORMULATION""; ""3.9 AN EFFICIENT INTEGER MAPPING""
""3.10 BOUNDARY CONDITIONS AND VECTOR PLANE-WAVE POLARIZATION""""3.11 REQUIRED CURRENT DENSITIES Jinc AND Minc""; ""3.12 SUMMARY OF METHOD""; ""3.13 MODELING EXAMPLES""; ""3.14 DISCUSSION""; ""REFERENCES""; ""Chapter 4 Electromagnetic Wave Source Conditions""; ""4.1 OVERVIEW""; ""4.2 INCIDENT FIELDS AND EQUIVALENT CURRENTS""; ""4.2.1 The Principle of Equivalence""; ""4.2.2 Discretization and Dispersion of Equivalent Currents""; ""4.3 SEPARATING INCIDENT AND SCATTERED FIELDS""; ""4.4 CURRENTS AND FIELDS: THE LOCAL DENSITY OF STATES""

Sommario/riassunto

This book presents the current state-of-the-art in formulating and implementing computational models of light with materials such as silicon and gold at the nanoscale. Maxwell's equations are solved using the finite-difference time-domain (FDTD) technique. It will help you understand the latest developments in computational modeling of nanoscale optical microscopy and microchip lithography. You will also explore cutting-edge details in modeling nanoscale plasmonics, including nonlocal dielectric functions, molecular interactions, and multi-level semiconductor gain. Other topics include nanoscale biophotonics, especially for detecting early-stage cancers, and quantum vacuum, including the Casimir effect and blackbody radiation. --