1. Record Nr. UNINA9910299700703321

Titolo	Computational Electromagnetics—Retrospective and Outlook : In Honor of Wolfgang J.R. Hoefer / / edited by Iftikhar Ahmed, Zhizhang (David) Chen
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2015
ISBN	981-287-095-4
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (328 p.)
Disciplina	537.0113 620.1/127
Soggetti	Microwaves Optical engineering Electronic circuits Magnetism Magnetic materials Microwaves, RF and Optical Engineering Circuits and Systems Magnetism, Magnetic Materials
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	Fifty Years of Research in Electromagnetics - A Voyage back in Time -- Some Remarks on the Transmission Line Matrix (TLM) Method and its Application to Transient EM Fields and to EMC Problems -- LTCC-Based Multilayer Composite Right/Left-Handed Transmission Lines for Super-Compact Distributed Circuits -- Unconditionally Stable Fundamental Alternating-Direction-Implicit FDTD Method for Dispersive Media -- Evaluation of the Transient Performance of Super-Wideband Printed-Circuit Antennas Using Time-Domain Electromagnetics -- Conformal and Multi-Scale Time-Domain Methods: From Unstructured Meshes to Meshless Discretisations -- A Mortar Element Method for the Electric Field Integral Equation on Sheets and Junctions.
Sommario/riassunto	The book will cover the past, present and future developments of field theory and computational electromagnetics. The first two chapters will

give an overview of the historical developments and the present the state-of-the-art in computational electromagnetics. These two chapters will set the stage for discussing recent progress, new developments, challenges, trends, and major directions in computational electromagnetics with three main emphases: a. Modeling of ever larger structures with multi-scale dimensions and multi-level descriptions (behavioral, circuit, network and field levels) and transient behaviours b. Inclusions of physical effects other than electromagnetic: quantum effects, thermal effects, mechanical effects and nanoscale features c. New developments in available computer hardware, programming paradigms (MPI, OpenMP, CUDA, and OpenCL) and the associated new modeling approaches These are the current emerging topics in the area of computational electromagnetics and may provide readers a comprehensive overview of future trends and directions in the area. The book is written for students, research scientists, professors, design engineers and consultants who engaged in the fields of design, analysis and research of the emerging technologies related to computational electromagnetics, RF/microwave, optimization, new numerical methods, as well as accelerator simulator, dispersive materials, nano-antennas, nano-waveguide, nano-electronics, terahertz applications, bio-medical and material sciences. The book may also be used for those involved in commercializing electromagnetic and related emerging technologies, sensors and the semiconductor industry. The book can be used as a reference book for graduates, and post graduates. It can also be used as a text book for workshops and continuing education for researchers and design engineers.

2.

Record Nr.	UNINA9911015861003321
Autore	Di Rocco C (Concezio)
Titolo	Advances and Technical Standards in Neurosurgery : Volume 55 / / edited by Concezio Di Rocco
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	9783031907623 9783031907616
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (291 pages)
Collana	Advances and Technical Standards in Neurosurgery, , 1869-9189 ; ; 55
Disciplina	617.48
Soggetti	Nervous system - Surgery Endoscopic surgery Neurosurgery Minimally Invasive Surgery
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Blake pouch: it is time to revisit classical descriptions on development of the roof of the fourth ventricle -- Surgical treatment of optic pathway hypothalamic gliomas -- Surgical Treatment of Cushing’s Disease: the Lessons Learned -- Microsurgical Anterior Transcallosal Resection of Colloid Cysts of the Third Ventricle -- Targeted treatment of pediatric craniopharyngioma: Lesson learnt after 20-year experience with intracystic interferon alpha -- Endoscopic Endonasal Resection of Clival Chordomas -- The Role of Lobectomy in Glioblastoma Management -- Hybrid Operative Room For Vascular Neurosurgery: Applications, Limits And Perspectives -- Minimalistic approaches to craniovertebral junction tumors -- Electromagnetic Navigation in Cranial Neurosurgery -- Theoretical and practical Neuroscience tools for Neurosurgery -- Endoscopic strip craniectomy for the treatment of single suture craniosynostosis.
Sommario/riassunto	This volume maintains the structure of previous ATSN series volumes, offering a balanced distribution of chapters that cover recent advances in neurosurgery and reviews of major neurosurgical conditions.Key sections of the volume provide a detailed review of tumors, including those of the optic pathways, hypothalamus, and pituitary adenomas.

These sections highlight the renewed interest in surgical options for these tumors, emphasizing multi-specialist treatment approaches. The initial chapters focus on the development of instruments and techniques that facilitate minimally invasive approaches to various regions of the brain and cranio-vertebral junction. The volume also includes a chapter on colloid cysts of the third ventricle, which complements the discussion of surgical approaches for anterior skull base and frontal basal region pathologies. Other chapters are dedicated to cerebral arterial aneurysms and arteriovenous malformations, exploring the advantages of combined therapeutic strategies for safer and more effective management of these complex lesions. The final chapters investigate the benefits of complete excision of spinal lipomas versus partial resections and the more extensive excision of brain tissue harboring a glioblastoma (lobectomy) versus simple resection of the tumor and its infiltration into the surrounding brain parenchyma. Overall, the book is primarily aimed at mature and experienced neurosurgeons, but it is also beneficial for younger practitioners. It emphasizes a continuous reconsideration of well-known diseases in terms of new approaches that combine increased efficacy with decreased risk for the patient.