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Business IndiaMedical ImagingMDCT: A Practical ApproachMedical ImagingKorean Journal of RadiologyMachine Learning in Medical ImagingAbdominal Imaging E-BookComputed Tomography TechnologyCT- and MR-Guided Interventions in RadiologyMDCT4D Modeling and Estimation of Respiratory Motion for Radiation TherapyComputed Tomography - E-Book2009 3rd International Conference on Bioinformatics and Biomedical EngineeringThe Complete Guide to Cardiac CTMachine Learning for Tomographic ImagingRadiation Dose from Multidetector CTA Reporting System on Patients Evaluated for Coronary Artery DiseaseKennewick ManBody MDCT in Small Animals2000 IEEE Nuclear Science SymposiumCoronary RadiologyProtocols for Multislice CTComputed TomographyMultislice CTTumors of the PancreasJournal Canadien Des Sciences NeurologiquesMulti-slice and Dual-source CT in Cardiac ImagingRadiation Dose from Adult and Pediatric Multidetector Computed TomographyMultislice CTMultidetector-Row CT of the ThoraxCT of the HeartMultidetector-Row Computed TomographyMultislice CTComputed Tomography for TechnologistsNew Techniques in Cardiothoracic ImagingDiagnostic Radiology: Recent Advances and Applied Physics in ImagingSpecification and Acceptance Testing of Computed Tomography ScannersEmergency MedicineThe Canadian Journal of CardiologyApplied Radiology

Business India

Medical Imaging

Interventional radiology is an indispensable and still expanding area of modern medicine that encompasses numerous diagnostic and therapeutic procedures. The revised and extended second edition of this volume covers a broad range of non-vascular interventions guided by CT or MR imaging. Indications, materials, techniques, and results are all carefully discussed. A particularly comprehensive section is devoted to interventional oncology as the most rapidly growing branch of interventional radiology. In addition, detailed information is provided that will assist in establishing and developing an interventional service. This richly illustrated book will be a most valuable source of information and guidance for all radiologists who deal with non-vascular procedures.

MDCT: A Practical Approach

A team of international experts provides a hands-on, evidence-based overview of the latest clinical applications of multislice computed tomography. Each chapter begins with standard examination protocols for a particular body area and then

provides detailed explanations of the key parameter choices for each scanner type - with supportive data from the available literature, wherever possible. The result is today's state-of-the-art definitive guide to the cost-effective use of this revolutionary new technology. Offers a complete overview of the most important applications of multislice computed tomography for all body areas. Organizes information in a head-to-toe format, making guidance quick and easy to find. Features abundantly illustrated guidance with many color 3-D images. Presents up-to-date coverage based upon the most recent technology, from 4-row to 64-row CT systems. Includes the latest information on contrast agents and equipment protocols. Also includes Multislice CT Angiography, the most advanced technique in vascular imaging. Covers the latest interventional procedures guided by MSCT.

Medical Imaging

This is the first monograph to focus exclusively on coronary radiology. It is particularly timely, given that the emergence of computed tomography and magnetic resonance imaging, coupled with improvements in both hard- and software, has made reproducible non-invasive coronary imaging a practical reality. A wide range of topics is addressed, including: quantitative angiography, intravascular and quantitative ultrasound, multislice and electron beam computed tomography, magnetic resonance coronary angiography and use of the coronary calcium score as an independent risk factor. All of the latest developments, such as

non-invasive intracoronary thrombus imaging, are covered. Particular care has been taken to consider the common questions confronted in asymptomatic patients. The text is supported by high-quality color images of the coronary and cardiac anatomy.

Korean Journal of Radiology

Machine Learning in Medical Imaging

In this new edition, the authors succinctly summarise clinical literature but also concentrate on both new entities and new concepts described since the publication of the third series ten years ago. The illustrations, with the exception of radiographs and electron micrographs, are in colour, and tumours are presented in detail. The continuing importance of tumour morphology in directing molecular studies is appropriately emphasised. In addition to the extensive discussion, illustrations, and up-to-date referencing of the numerous pancreatic tumours and tumour-like lesions, important discussions have been provided on normal gross, histologic and cytologic findings, and on pancreatic tumour staging. These discussions complement the authors' treatment of the often confusing issue of frozen section interpretation, dissection, and reporting of pancreatic resection

specimens, and an ""unknown"" pancreatic biopsy or cytology specimen. This volume should be the definitive reference on pancreatic tumour for years to come.

Abdominal Imaging E-Book

Leveraging the organization and focus on exam preparation found in the comprehensive text, this Exam Review will help any student to successfully complete the ARRT General Radiography and Computed Tomography exams. The book includes a bulleted format review of content, Registry-style questions with answers and rationales, and a mock exam following the ARRT format. The companion website offers an online testing simulation engine.

Computed Tomography Technology

"An excellent primer on medical imaging for all members of the medical profession . . . including non-radiological specialists. It is technically solid and filled with diagrams and clinical images illustrating important points, but it is also easily readable . . . So many outstanding chapters . . . The book uses little mathematics beyond simple algebra [and] presents complex ideas in very understandable terms." —Melvin E. Clouse, MD, Vice Chairman Emeritus, Department of Radiology, Beth Israel Deaconess Medical Center and Deaconess Professor of Radiology,

Harvard Medical School A well-known medical physicist and author, an interventional radiologist, and an emergency room physician with no special training in radiology have collaborated to write, in the language familiar to physicians, an introduction to the technology and clinical applications of medical imaging. It is intentionally brief and not overly detailed, intended to help clinicians with very little free time rapidly gain enough command of the critically important imaging tools of their trade to be able to discuss them confidently with medical and technical colleagues; to explain the general ideas accurately to students, nurses, and technologists; and to describe them effectively to concerned patients and loved ones. Chapter coverage includes: Introduction: Dr. Doe's Headaches Sketches of the Standard Imaging Modalities Image Quality and Dose Creating Subject Contrast in the Primary X-Ray Image Twentieth-Century (Analog) Radiography and Fluoroscopy Radiation Dose and Radiogenic Cancer Risk Twenty-First-Century (Digital) Imaging Digital Planar Imaging Computed Tomography Nuclear Medicine (Including SPECT and PET) Diagnostic Ultrasound (Including Doppler) MRI in One Dimension and with No Relaxation Mapping T1 and T2 Proton Spin Relaxation in 3D Evolving and Experimental Modalities

CT- and MR-Guided Interventions in Radiology

MDCT

4D Modeling and Estimation of Respiratory Motion for Radiation Therapy

This is the second, revised edition of the very successful volume on multislice CT published only 2 years ago. A second edition became necessary so swiftly due to the rapid technical developments in multi-detector row technology; a huge amount of new experimental and clinical data has recently become available. This book is the most comprehensive up-to-date work on all aspects of the clinical applications of this fascinating imaging technique. It contains information on the very latest developments in the field, as well as numerous superb illustrations. I am very much indebted to the editors of this volume, M. F. Reiser, M. Takahashi, M.Modic and C.R.Becker - all renowned international experts in computer tomogra phy - for the immense dedication and tireless effort involved in preparing and editing this superb volume in a record brief period of time. I would like to congratulate the editors and the contributing authors, all selected for their exceptional expertise, on the outstanding quality of the different chapters and the wide range of topics covered.

Computed Tomography - E-Book

2009 3rd International Conference on Bioinformatics and Biomedical Engineering

Leading clinicians and researchers from around the world review the full scope of current developments, research, and scientific controversy regarding the principles and applications of cardiac CT. Richly illustrated with numerous black-and-white and color images, the book discusses the interpretation of CT images of the heart in a variety of clinical, physiological, and pathological applications. The authors emphasize current state-of-the-art uses of CT, but also examine developments at the horizon. They also review the technical basis of CT image acquisition, as well as tools for image visualization and analysis.

The Complete Guide to Cardiac CT

Machine Learning for Tomographic Imaging

Radiation Dose from Multidetector CT

Multidetector-row computed tomography (MDCT) has advanced the approach to diagnostic assessment of many pathologies and now plays an integral role in imaging of both abdominal and cardiovascular diseases. The possibility to acquire diagnostic images with shorter scan duration, longer scan ranges, and/or thinner sections, MDCT has facilitated the opening of new horizons, such as interventional MDCT and functional imaging in stroke and oncology. In addition, advanced postprocessing techniques now permit high quality volumetric imaging in combination with maximum intensity projections, volume rendering, curved planar reformations and multiplanar reconstructions. This volume gathers contributions by internationally renowned specialists in the field who, through presenting their clinical experience, provide a thorough overview not only of MDCT and its practical applications, but also of workflow management in everyday clinical practice. Focussing on scanning and contrast protocols, the current advantages and disadvantages of non-enhanced vs. enhanced MDCT are discussed, along with insights into likely future developments. The volume represents an up-to-date source of technical and practically-oriented clinical information which should prove of great benefit to all who wish to improve or consolidate their knowledge and expertise in MDCT.

A Reporting System on Patients Evaluated for Coronary Artery Disease

Build the foundation necessary for the practice of CT scanning with Computed Tomography: Physical Principles, Clinical Applications, and Quality Control, 4th Edition. Written to meet the varied requirements of radiography students and practitioners, this two-color text provides comprehensive coverage of the physical principles of CT and its clinical applications. Its clear, straightforward approach is designed to improve your understanding of sectional anatomic images as they relate to CT — and facilitate communication between CT technologists and other medical personnel. Comprehensively covers CT at just the right depth for technologists – going beyond superficial treatment to accommodate all the major advances in CT. One complete CT resource covers what you need to know! The latest information on advances in CT imaging, including: advances in volume CT scanning; CT fluoroscopy; multi-slice applications like 3-D imaging, CT angiography, and virtual reality imaging (endoscopy) – all with excellent coverage of state-of-the-art principles, instrumentation, clinical applications, and quality control. More than 600 photos and line drawings help students understand and visualize concepts. Chapter outlines show you what is most important in every chapter. Strong ancillary package on Evolve facilitates instructor preparation and provides a full complement of support for teaching and learning with the text NEW!

Highlights recent technical developments in CT, such as: the iterative reconstruction; detector updates; x-ray tube innovations; radiation dose optimization; hardware and software developments; and the introduction of a new scanner from Toshiba. NEW! Learning Objectives and Key Terms at the beginning of every chapter and a Glossary at the end of the book help you organize and focus on key information. NEW! End-of-Chapter Questions provide opportunity for review and greater challenge. NEW! An added second color aids in helping you read and retain pertinent information

Kennewick Man

This book is an up-to-date, technically detailed yet easy-to-read reference book on current clinical applications of MDCT in small animals. It has been designed to serve as the reference book for all MDCT-users, such as veterinary radiologists, imaging technicians, oncologists, surgeons, and non-radiologist clinicians. Individual chapters on novel clinically important topics include applications in endocrinology, oncology, trauma, and cardiovascular CT, as well as sections on organ-specific pathologies and their CT characteristics. The book will also cover main domains of CT, such as thorax and the trauma imaging. Anatomy, clinical aspects, pathology, and CT signs are integrated to provide the reader with the basis for interpretation of MDCT findings. Many excellent 2D multiplanar and 3D figures illustrating typical CT findings of various conditions will serve as a clinical

reference for the reader.

Body MDCT in Small Animals

This second edition has been fully updated to provide radiologists with all the recent technological advances in diagnostic radiology. Divided into six sections, it covers all the key aspects of the imaging – ultrasound, computed tomography, magnetic resonance imaging, radiography and interventional radiography, and contrast media. The final section discusses miscellaneous topics including evidence based radiology, radiation protection, molecular imaging, planning a modern imaging department, and common drugs used. A separate chapter is dedicated to picture archiving and data management. This comprehensive new edition includes nearly 600 full colour radiological images and illustrations. Key points Fully updated, new edition presenting recent technological advances in diagnostic radiology Covers all key imaging techniques Includes nearly 600 radiological photographs and illustrations Previous edition published in 2007

2000 IEEE Nuclear Science Symposium

Abdominal Imaging, a title in the Expert Radiology Series, edited by Drs. Dushyant Sahani and Anthony Samir, is a comprehensive reference that encompasses both

GI and GU radiology. It provides richly illustrated, advanced guidance to help you overcome the full range of diagnostic, therapeutic, and interventional challenges in abdominal imaging and combines an image-rich, easy-to-use format with the greater depth that experienced practitioners need. Select the best imaging approaches and effectively interpret your findings by comparing them to thousands of images that represent every modality and every type of abdominal imaging. Find detailed, expert guidance on all diagnostic, therapeutic, and interventional aspects of abdominal imaging in one authoritative source, including challenging topics such as Oncologic Assessment of Tumor Response and How to Scan a Difficult Patient. Efficiently locate the information you need with a highly templated, well-organized, at-a-glance organization.

Coronary Radiology

Each issue includes separate but continuously paged sections called: Nuclear medicine, and: Ultrasound

Protocols for Multislice CT

With the advent of multidetector-row technology, excitement has returned to computed tomography. Not only can we now image faster and with better

resolution than ever before. More importantly, the development of sophisticated image acquisition techniques has enabled us to venture into areas previously considered to be beyond the scope of CT imaging. The knowledge, experience, and vision of a host of renowned international experts in cutting-edge thoracic applications of multidetector-row CT are condensed within this book. The result is a critical, comprehensive review of the novel opportunities, but also the new challenges, brought about by the development of ever-faster CT acquisition techniques. Presents the latest developments in CT imaging of the thorax Comprehensively reviews the literature Offers useful practical guidelines Addresses both opportunities and challenges Written by leading international experts

Computed Tomography

Multislice CT

Respiratory motion causes an important uncertainty in radiotherapy planning of the thorax and upper abdomen. The main objective of radiation therapy is to eradicate or shrink tumor cells without damaging the surrounding tissue by delivering a high radiation dose to the tumor region and a dose as low as possible

to healthy organ tissues. Meeting this demand remains a challenge especially in case of lung tumors due to breathing-induced tumor and organ motion where motion amplitudes can measure up to several centimeters. Therefore, modeling of respiratory motion has become increasingly important in radiation therapy. With 4D imaging techniques spatiotemporal image sequences can be acquired to investigate dynamic processes in the patient's body. Furthermore, image registration enables the estimation of the breathing-induced motion and the description of the temporal change in position and shape of the structures of interest by establishing the correspondence between images acquired at different phases of the breathing cycle. In radiation therapy these motion estimations are used to define accurate treatment margins, e.g. to calculate dose distributions and to develop prediction models for gated or robotic radiotherapy. In this book, the increasing role of image registration and motion estimation algorithms for the interpretation of complex 4D medical image sequences is illustrated. Different 4D CT image acquisition techniques and conceptually different motion estimation algorithms are presented. The clinical relevance is demonstrated by means of example applications which are related to the radiation therapy of thoracic and abdominal tumors. The state of the art and perspectives are shown by an insight into the current field of research. The book is addressed to biomedical engineers, medical physicists, researchers and physicians working in the fields of medical image analysis, radiology and radiation therapy.

Tumors of the Pancreas

This book considers in depth all the factors that influence the radiation dose and the risk associated with MDCT in children and adults. Only a small proportion of referring clinicians, radiologists, and technologists are aware of both the radiation risks and their underlying mechanisms. The book proposes detailed guidelines for optimization of the radiation dose when using MDCT. It is written by experts of international standing.

Journal Canadien Des Sciences Neurologiques

Acquire a thorough understanding of cardiac imaging! "I believe radiologists, cardiologists, and clinicians, as well as trainees, will find The Complete Guide to Cardiac CT to be an indispensible tool for learning the subject matter.It is practical in approach, but is solidly grounded in evidence-based medicine with a comprehensive review of the literature and timely references. The textbook provides an ideal resource for the cardiac imager and serves as an exceptional reference tool for understanding the anatomy and disease processes of the heart and coronary circulatory systems."--Theresa C. McLoud, MD, Dept. of Radiology, Massachusetts General Hospital, and Professor of Radiology, Harvard Medical School (from the foreword) Based on the popular review courses of educator and

radiologist Dr. Simeon Abramson, The Complete Guide to Cardiac CT is a timely, hands-on learning tool—one that will help you master every important aspect of cardiac CT, from acquisition to interpretation. This unique guide translates complex concepts and topics into understandable, relevant subject matter and includes contributions from international leaders in cardiac CT. Designed for the practical, day-to-day application of cardiac CT, the text also serves as a comprehensive visual resource more than 1000 laser-precise images and illustrations, all of which reflect the latest clinical acumen and cardiac imaging technology. FEATURES Focuses on the recognition, identification, and comprehension of heart and coronary circulatory pathology Valuable to clinicians at any experience level Logical 4-part organization consists of: Technology section that encompasses coronary CT angiography technique, radiation concepts, and successful application of radiation dose reduction tools—-plus a detailed review of strategies for overcoming suboptimal examinations, complete with case examples. Coronary Arteries section that thoroughly examines plaque detection and characterization, stenosis assessment, stents and bypass grafts, and assessment of coronary artery anomalies. Beyond the Coronary Arteries details cardiac CT anatomy; myocardial, pericardial and valvular pathology; electrophysiology applications; and congenital heart disease in both pediatric and adult populations. Controversial topics focuses on the utilization of cardiac CT in the acute setting, institution of the triple rule-out protocol, and anatomic versus physiologic imaging with Rubidium PET/CT/ Helpful pedagogy includes numerous tables, diagrams, figures, and illustrations

Multi-slice and Dual-source CT in Cardiac Imaging

The book offers a comprehensive and user-oriented description of the theoretical and technical system fundamentals of computed tomography (CT) for a wide readership, from conventional single-slice acquisitions to volume acquisition with multi-slice and cone-beam spiral CT. It covers in detail all characteristic parameters relevant for image quality and all performance features significant for clinical application. Readers will thus be informed how to use a CT system to an optimum depending on the different diagnostic requirements. This includes a detailed discussion about the dose required and about dose measurements as well as how to reduce dose in CT. All considerations pay special attention to spiral CT and to new developments towards advanced multi-slice and cone-beam CT. For the third edition most of the contents have been updated and latest topics like dual source CT, dual energy CT, flat detector CT and interventional CT have been added. The enclosed CD-ROM again offers copies of all figures in the book and attractive case studies, including many examples from the most recent 64-slice acquisitions, and interactive exercises for image viewing and manipulation. This book is intended for all those who work daily, regularly or even only occasionally with CT: physicians, radiographers, engineers, technicians and physicists. A glossary describes all the important technical terms in alphabetical order. The enclosed DVD again offers attractive case studies, including many examples from the most recent 64-slice acquisitions, and interactive exercises for image viewing and manipulation. This

book is intended for all those who work daily, regularly or even only occasionally with CT: physicians, radiographers, engineers, technicians and physicists. A glossary describes all the important technical terms in alphabetical order.

Radiation Dose from Adult and Pediatric Multidetector Computed Tomography

Multislice CT

This book describes current examination techniques and advanced clinical applications of state-of-the-art multidetector computed tomography (MDCT) scanners. There are contributions from several distinguished radiologists and clinicians. Each chapter is written from a practical perspective, so that radiologists, residents, medical physicists, and radiology technologists can obtain relevant information about MDCT applications.

Multidetector-Row CT of the Thorax

This book provides structured up-to-date information on all routine protocols used for multislice (multidetector row) CT. The volume contains a detailed technical

section and covers the prevailing investigations of the brain, neck, lungs and chest, abdomen with parenchymal organs and gastrointestinal tract, the musculoskeletal system and CTA as well as dedicated protocols for the heart. Separate chapters address the how-to of CT-guided interventions such as punctures, drainages, and therapeutic approaches. Each protocol is displayed en bloc, enabling rapid appreciation of indications and the necessary scanner settings. The second edition includes contributions by renowned experts in the field, who not only provide their clinical experience on each topic, but also give guidelines for indications, workflow, postprocessing and reconstruction algorithms.

CT of the Heart

This book constitutes the refereed proceedings of the 8th International Workshop on Machine Learning in Medical Imaging, MLMI 2017, held in conjunction with MICCAI 2017, in Quebec City, QC, Canada, in September 2017. The 44 full papers presented in this volume were carefully reviewed and selected from 63 submissions. The main aim of this workshop is to help advance scientific research within the broad field of machine learning in medical imaging. The workshop focuses on major trends and challenges in this area, and presents works aimed to identify new cutting-edge techniques and their use in medical imaging.

Multidetector-Row Computed Tomography

Machine learning represents a paradigm shift in tomographic imaging, and image reconstruction is a new frontier of machine learning. This book will meet the needs of those who want to catch the wave of smart imaging. The book targets graduate students and researchers in the imaging community. Open network software, working datasets, and multimedia will be included. The first of its kind in the emerging field of deep reconstruction and deep imaging, Machine Learning for Tomographic Imaging presents the most essential elements, latest progresses and an in-depth perspective on this important topic.

Multislice CT

A thorough examination of the Kennewick Man human remains by forensic anthropologists, archaeologists, geologists, and geochemists reveals the secrets of one of the earliest human occupants of North America.

Computed Tomography for Technologists

The fourth edition of this well-received book offers a comprehensive update on recent developments and trends in the clinical and scientific applications of

multislice computed tomography. Following an initial section on the most significant current technical aspects and issues, detailed information is provided on a comprehensive range of diagnostic applications. Imaging of the head and neck, the cardiovascular system, the abdomen, and the lungs is covered in depth, describing the application of multislice CT in a variety of tumors and other pathologies. Emerging fields such as pediatric imaging and CT-guided interventions are fully addressed, and emergency CT is also covered. Radiation exposure, dual-energy imaging, contrast enhancement, image postprocessing, CT perfusion imaging, and CT angiography all receive close attention. The new edition has been comprehensively revised and complemented by contributions from highly experienced and well-known authors who offer diverse perspectives, highlighting the possibilities offered by the most modern multidetector CT systems. This book will be particularly useful for general users of CT systems who wish to upgrade and enhance not only their machines but also their knowledge.

New Techniques in Cardiothoracic Imaging

This book discusses the state-of-the-art developments in multi-slice CT for cardiac imaging as well as those that can be anticipated in the future. It is a comprehensive work covering all aspects of this technology from the technical fundamentals to clinical indications and protocol recommendations. This second edition draws on the most recent clinical experience obtained with 16- and 64-slice

CT scanners by world-leading experts. The book also has chapters on area-detector CT and the brand new dual-source CT.

Diagnostic Radiology: Recent Advances and Applied Physics in Imaging

Specification and Acceptance Testing of Computed Tomography Scanners

Computed tomography (CT) is a powerful technique providing precise and confident diagnoses. The burgeoning use of CT has resulted in an exponential increase in collective radiation dose to the population. Despite investigations supporting the use of lower radiation doses, surveys highlight the lack of proper understanding of CT parameters that affect radiation dose. Dynamic advances in CT technology also make it important to explain the latest dose-saving strategies in an easy-to-comprehend manner. This book aims to review all aspects of the radiation dose from CT and to provide simple rules and tricks for radiologists and radiographers that will assist in the appropriate use of CT technique. The second edition includes a number of new chapters on the most up-to-date strategies and technologies for radiation dose reduction while updating the outstanding contents

of the first edition. Vendor perspectives are included, and an online image gallery will also be available to readers.

Emergency Medicine

"MDCT: From Protocols to Practice" tackles contemporary and topical issues in MDCT technology and applications. As an updated edition of MDCT: A Practical Approach, this volume offers new content as well as revised chapters from the previous volume. New chapters discuss important topics such as imaging of children and obese subjects, the use of contrast medium in pregnant women, coronary MDCT angiography, and PET/CT in abdominal and pelvic malignancies. Furthermore an Appendix with over 50 updated MDCT scanning protocols completes this publication. The book emphasizes the practical aspects of MDCT, making it an invaluable source of information for radiologists, residents, medical physicists, and radiology technologists in everyday clinical practice.

The Canadian Journal of Cardiology

New Techniques in Cardiothoracic Imaging emphasizes emerging methods in computed tomography, magnetic resonance imaging, positron-emission tomography, and similar technology. Effective use of these tools can facilitate the

identification, analysis, and treatment of diseases and disorders commonly encountered in daily clinical practice. The contributors to this volume discuss: PET-CT Cardiac CT Multidetector-row helical CT High-resolution CT of the lungs Cardiac MR Functional MR Digital chest radiography Bringing readers to the forefront of the field with expert assessments of new and emerging technologies that are impacting cardiothoracic imaging, the book presents the work of seasoned experts who have developed a thorough clinical and basic knowledge in this evolving discipline and provide practical guidance on incorporating new techniques from the laboratory to the clinical practice. More than 250 highly-detailed scientific images enhance the text.

Applied Radiology

ROMANCE ACTION & ADVENTURE MYSTERY & THRILLER BIOGRAPHIES & HISTORY CHILDREN'S YOUNG ADULT FANTASY HISTORICAL FICTION HORROR LITERARY FICTION NON-FICTION SCIENCE FICTION