### Tensor Calculus And Differential Geometry By Prasun Kumar Nayak

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#### **Elementary Differential Geometry** - A.N. Pressley 2013-11-11

Pressley assumes the reader knows the main results of multivariate calculus and concentrates on the theory of the study of surfaces. Used for courses on surface geometry, it includes intersting and in-depth examples and goes into the subject in great detail and vigour. The book will cover three-dimensional Euclidean space only, and takes the whole book to cover the material and treat it as a subject in its own right.

Tensor Calculus for Engineers and Physicists - Emil de Souza Sánchez Filho 2016-05-20

This textbook provides a rigorous approach to tensor manifolds in several aspects relevant for Engineers and Physicists working in industry or academia. With a thorough, comprehensive, and unified presentation, this book offers insights into several topics of tensor analysis, which covers all aspects of n-dimensional spaces. The main purpose of this book is to give a self-contained yet simple, correct and comprehensive mathematical explanation of tensor calculus for undergraduate and graduate students and for professionals. In addition to many worked problems, this book features a selection of examples, solved step by step. Although no emphasis is placed on special and particular problems of Engineering or Physics, the text covers the fundamentals of these fields of science. The book makes a brief introduction into the basic concept of the tensorial formalism so as to allow the reader to make a quick and easy review of the essential topics that enable having the grounds for the subsequent themes, without needing to resort to other bibliographical sources on tensors. Chapter 1 deals with Fundamental Concepts about tensors and chapter 2 is devoted to the study of covariant, absolute and contravariant derivatives. The chapters 3 and 4 are dedicated to the Integral Theorems and Differential Operators, respectively. Chapter 5 deals with Riemann Spaces, and finally the chapter 6 presents a concise study of the Parallelism of Vectors. It also shows how to solve various problems of several particular manifolds.

Advances in Computing and Data Sciences - Mayank Singh 2019-07-19

**Intelligent Computing and Communication** - Vikrant Bhateja 2020-02-17

This two-volume set (CCIS 1045 and CCIS 1046) constitutes the refereed proceedings of the Third International Conference on Advances in Computing and Data Sciences, ICACDS 2019, held in Ghaziabad, India, in April 2019. The 112 full papers were carefully reviewed and selected from 621 submissions. The papers are centered around topics like advanced computing, data sciences, distributed systems organizing principles, development frameworks and environments, software verification and validation, computational complexity and cryptography, machine learning theory, database theory, probabilistic representations.

This book features a collection of high-quality, peer-reviewed papers presented at the Third International Conference on Intelligent Computing and Communication (ICICC 2019) held at the School of Engineering, Dayananda Sagar University, Bengaluru, India, on 7 – 8 June 2019. Discussing advanced and multidisciplinary research regarding the design of smart computing and informatics, it focuses on innovation paradigms in system knowledge, intelligence and sustainability that can be applied to provide practical solutions to a number of problems in society, the environment and industry. Further, the book also addresses the deployment of emerging computational and knowledge transfer approaches, optimizing solutions in various disciplines of science, technology and healthcare.

What Are Tensors Exactly? - Hongyu Guo 2021-06-16

Tensors have numerous applications in physics and engineering. There is often a fuzzy haze surrounding

the concept of tensor that puzzles many students. The old-fashioned definition is difficult to understand because it is not rigorous; the modern definitions are difficult to understand because they are rigorous but at a cost of being more abstract and less intuitive. The goal of this book is to elucidate the concepts in an intuitive way but without loss of rigor, to help students gain deeper understanding. As a result, they will not need to recite those definitions in a parrot-like manner any more. This volume answers common questions and corrects many misconceptions about tensors. A large number of illuminating illustrations helps the reader to understand the concepts more easily. This unique reference text will benefit researchers, professionals, academics, graduate students and undergraduate students.

Parallel Processing for Scientific Computing - Michael A. Heroux 2006-01-01

Parallel processing has been an enabling technology in scientific computing for more than 20 years. This book is the first in-depth discussion of parallel computing in 10 years; it reflects the mix of topics that mathematicians, computer scientists, and computational scientists focus on to make parallel processing effective for scientific problems. Presently, the impact of parallel processing on scientific computing varies greatly across disciplines, but it plays a vital role in most problem domains and is absolutely essential in many of them. Parallel Processing for Scientific Computing is divided into four parts: The first concerns performance modeling, analysis, and optimization; the second focuses on parallel algorithms and software for an array of problems common to many modeling and simulation applications; the third emphasizes tools and environments that can ease and enhance the process of application development; and the fourth provides a sampling of applications that require parallel computing for scaling to solve larger and realistic models that can advance science and engineering.

ICT Analysis and Applications - Simon Fong 2020-02-03

This book proposes new technologies and discusses future solutions for ICT design infrastructures, as reflected in high-quality papers presented at the 4th International Conference on ICT for Sustainable Development (ICT4SD 2019), held in Goa, India, on 5-6 July 2019. The conference provided a valuable forum for cutting-edge research discussions among pioneering researchers, scientists, industrial engineers, and students from all around the world. Bringing together experts from different countries, the book explores a range of central issues from an international perspective.

A Textbook of Vector Analysis - Shanti Narayan | PK Mittal 2010

A Textbook of Vector Analysis

Matrix Calculus, Kronecker Product And Tensor Product: A Practical Approach To Linear Algebra, Multilinear Algebra And Tensor Calculus With Software Implementations (Third Edition) - Hardy Yorick 2019-04-08

Our self-contained volume provides an accessible introduction to linear and multilinear algebra as well as tensor calculus. Besides the standard techniques for linear algebra, multilinear algebra and tensor calculus, many advanced topics are included where emphasis is placed on the Kronecker product and tensor product. The Kronecker product has widespread applications in signal processing, discrete wavelets, statistical physics, Hopf algebra, Yang-Baxter relations, computer graphics, fractals, quantum mechanics, quantum computing, entanglement, teleportation and partial trace. All these fields are covered comprehensively. The volume contains many detailed worked-out examples. Each chapter includes useful exercises and

supplementary problems. In the last chapter, software implementations are provided for different concepts. The volume is well suited for pure and applied mathematicians as well as theoretical physicists and engineers. New topics added to the third edition are: mutually unbiased bases, Cayley transform, spectral theorem, nonnormal matrices, Gâteaux derivatives and matrices, trace and partial trace, spin coherent states, Clebsch-Gordan series, entanglement, hyperdeterminant, tensor eigenvalue problem, Carleman matrix and Bell matrix, tensor fields and Ricci tensors, and software implementations.

#### **Principles of** - Taha Sochi 2017-08-08

This book is based on my previous book: Tensor Calculus Made Simple, where the development of tensor calculus concepts and techniques are continued at a higher level. Unlike the previous book which is largely based on a Cartesian approach, the formulation in the present book is based on a general coordinate system. The book is furnished with an index as well as detailed sets of exercises to provide useful revision and practice. To facilitate linking related concepts and sections, cross referencing is used extensively throughout the book. The book also contains a number of graphic illustrations to help the readers to visualize the ideas and understand the subtle concepts. The book can be used as a text for an introductory or an intermediate level course on tensor calculus.

#### **Tensor Calculus** - J. L. Synge 2012-04-26

Fundamental introduction of absolute differential calculus and for those interested in applications of tensor calculus to mathematical physics and engineering. Topics include spaces and tensors; basic operations in Riemannian space, curvature of space, more.

Interventional Urology - Ardeshir R. Rastinehad 2022-02-08

This updated text provides a concise yet comprehensive and state-of-the-art review of evolving techniques in the new and exciting subspecialty of interventional urology. Significant advances in imaging technologies, diagnostic tools, fusion navigation, and minimally invasive image-guided therapies such as focal ablative therapies have expanded the interventional urologists' clinical toolkit over the past decade. Organized by organ system with subtopics covering imaging technologies, interventional techniques, recipes for successful practice, pitfalls to shorten the learning curves for new technologies, and clinical outcomes for the vast variety of interventional urologic procedures, this second edition includes many more medical images as well as helpful graphics and reference illustrations. The second edition of Interventional Urology serves as a valuable resource for clinicians, interventional urologists, interventional radiologists, interventional oncologists, urologic oncologists, as well as scientists, researchers, students, and residents with an interest in interventional urology.

#### TENSORS - AHSAN, ZAFAR 2015-05-21

The principal aim of analysis of tensors is to investigate those relations which remain valid when we change from one coordinate system to another. This book on Tensors requires only a knowledge of elementary calculus, differential equations and classical mechanics as pre-requisites. It provides the readers with all the information about the tensors along with the derivation of all the tensorial relations/equations in a simple manner. The book also deals in detail with topics of importance to the study of special and general relativity and the geometry of differentiable manifolds with a crystal clear exposition. The concepts dealt within the book are well supported by a number of solved examples. A carefully selected set of unsolved problems is also given at the end of each chapter, and the answers and hints for the solution of these problems are given at the end of the book. The applications of tensors to the fields of differential geometry, relativity, cosmology and electromagnetism is another attraction of the present book. This book is intended to serve as text for postgraduate students of mathematics, physics and engineering. It is ideally suited for both students and teachers who are engaged in research in General Theory of Relativity and Differential Geometry.

#### A Brief on Tensor Analysis - James G. Simmonds 2012-10-31

In this text which gradually develops the tools for formulating and manipulating the field equations of Continuum Mechanics, the mathematics of tensor analysis is introduced in four, well-separated stages, and the physical interpretation and application of vectors and tensors are stressed throughout. This new edition contains more exercises. In addition, the author has appended a section on Differential Geometry. Manifolds, Tensors and Forms - Paul Renteln 2014

Comprehensive treatment of the essentials of modern differential geometry and topology for graduate students in mathematics and the physical sciences.

#### **Machine Learning Approaches to Bioinformatics -**

#### **Understanding Viscoelasticity** - Nhan Phan-Thien 2017-07-27

This book presents an introduction to viscoelasticity, in particular, to the theories of dilute polymer solutions and dilute suspensions of rigid particles in viscous and incompressible fluids. These theories are important, not just because they apply to practical problems of industrial interest, but because they form a solid theoretical base upon which mathematical techniques can be built, from which more complex theories can be constructed, to better mimic material behaviour. The emphasis of this book is not on the voluminous current topical research, but on the necessary tools to understand viscoelasticity. This is a compact book for a first year graduate course in viscoelasticity and modelling of viscoelastic multiphase fluids. The Dissipative Particle Dynamics (DPD) is introduced as a particle-based method, relevant in modelling of complex-structured fluids. All the basic ideas in DPD are reviewed. The third edition has been updated and expanded with new results in the meso-scale modelling, links between the fluid modelling to its physical parameters and new matlab programs illustrating the modelling. Particle-based modelling techniques for complex-structure fluids are added together with some sample programs. A solution manual to the problems is included.

Geostatistics Valencia 2016 - J. Jaime Gómez-Hernández 2017-03-07

This book contains selected contributions presented at the 10th International Geostatistics Congress held in Valencia from 5 to 9 September, 2016. This is a quadrennial congress that serves as the meeting point for any engineer, professional, practitioner or scientist working in geostatistics. The book contains carefully reviewed papers on geostatistical theory and applications in fields such as mining engineering, petroleum engineering, environmental science, hydrology, ecology, and other fields.

Integral Equations and Calculus of Variations - Mijanur Rahaman Seikh 2019-10-31

Designed to meet requirements of undergraduate and postgraduate courses in Mathematics, Physics and Engineering of various Universities, this book covers all the standard topics in detail. The illustrated examples in this book are solved by classical analytic procedure. Theories as well as proofs of theorems are portrayed in a lucid manner. The topic of calculus of variations would be of particular interest to the readers. This book will help aspiring students of different competitive examinations.

#### Schaum's Outline of Vector Analysis, 2ed - Murray R. Spiegel 2009-05-04

The guide to vector analysis that helps students study faster, learn better, and get top grades More than 40 million students have trusted Schaum's to help them study faster, learn better, and get top grades. Now Schaum's is better than ever-with a new look, a new format with hundreds of practice problems, and completely updated information to conform to the latest developments in every field of study. Fully compatible with your classroom text, Schaum's highlights all the important facts you need to know. Use Schaum's to shorten your study time-and get your best test scores! Schaum's Outlines-Problem Solved. *Tensor Algebra and Tensor Analysis for Engineers* - Mikhail Itskov 2009-04-30 There is a large gap between engineering courses in tensor algebra on one hand, and the treatment of

There is a large gap between engineering courses in tensor algebra on one hand, and the treatment of linear transformations within classical linear algebra on the other. This book addresses primarily engineering students with some initial knowledge of matrix algebra. Thereby, mathematical formalism is applied as far as it is absolutely necessary. Numerous exercises provided in the book are accompanied by solutions enabling autonomous study. The last chapters deal with modern developments in the theory of isotropic and anisotropic tensor functions and their applications to continuum mechanics and might therefore be of high interest for PhD-students and scientists working in this area.

Machine Learning in the Oil and Gas Industry - Yogendra Narayan Pandey 2020-11-03

Apply machine and deep learning to solve some of the challenges in the oil and gas industry. The book begins with a brief discussion of the oil and gas exploration and production life cycle in the context of data flow through the different stages of industry operations. This leads to a survey of some interesting problems, which are good candidates for applying machine and deep learning approaches. The initial chapters provide a primer on the Python programming language used for implementing the algorithms; this

is followed by an overview of supervised and unsupervised machine learning concepts. The authors provide industry examples using open source data sets along with practical explanations of the algorithms, without diving too deep into the theoretical aspects of the algorithms employed. Machine Learning in the Oil and Gas Industry covers problems encompassing diverse industry topics, including geophysics (seismic interpretation), geological modeling, reservoir engineering, and production engineering. Throughout the book, the emphasis is on providing a practical approach with step-by-step explanations and code examples for implementing machine and deep learning algorithms for solving real-life problems in the oil and gas industry. What You Will Learn Understanding the end-to-end industry life cycle and flow of data in the industrial operations of the oil and gas industry Get the basic concepts of computer programming and machine and deep learning required for implementing the algorithms used Study interesting industry problems that are good candidates for being solved by machine and deep learning Discover the practical considerations and challenges for executing machine and deep learning projects in the oil and gas industry Who This Book Is For Professionals in the oil and gas industry who can benefit from a practical understanding of the machine and deep learning approach to solving real-life problems. <u>Differential Geometry and Lie Groups for Physicists</u> - Marián Fecko 2006-10-12 Differential geometry plays an increasingly important role in modern theoretical physics and applied mathematics. This textbook gives an introduction to geometrical topics useful in theoretical physics and

Differential geometry plays an increasingly important role in modern theoretical physics and applied mathematics. This textbook gives an introduction to geometrical topics useful in theoretical physics and applied mathematics, covering: manifolds, tensor fields, differential forms, connections, symplectic geometry, actions of Lie groups, bundles, spinors, and so on. Written in an informal style, the author places a strong emphasis on developing the understanding of the general theory through more than 1000 simple exercises, with complete solutions or detailed hints. The book will prepare readers for studying modern treatments of Lagrangian and Hamiltonian mechanics, electromagnetism, gauge fields, relativity and gravitation. Differential Geometry and Lie Groups for Physicists is well suited for courses in physics, mathematics and engineering for advanced undergraduate or graduate students, and can also be used for active self-study. The required mathematical background knowledge does not go beyond the level of standard introductory undergraduate mathematics courses.

#### Applied Mathematical Methods: - Dasgupta, Bhaskar 2006

Applied Mathematical Methods covers the material vital for research in today's world and can be covered in a regular semester course. It is the consolidation of the efforts of teaching the compulsory first semester post-graduate applied mathematics course at the Department of Mechanical Engineering at IIT Kanpur in two successive years.

#### **Tensor Calculus** - Uday Chand De 2005

This work covers all the basic topics of tensor analysis in a lucid and clear language and is aimed at both the undergraduate and postgraduate in Civil, Mechanical and Aerospace Engineering and in Engineering Physics.

# Schaum's Outline of Theory and Problems of Vector Analysis and an Introduction to Tensor Analysis - Murray R. Spiegel 1959

This book introduces students to vector analysis, a concise way of presenting certain kinds of equations and a natural aid for forming mental pictures of physical and geometrical ideas. Students of the physical sciences and of physics, mechanics, electromagnetic theory, aerodynamics and a number of other fields will find this a rewarding and practical treatment of vector analysis. Key points are made memorable with the hundreds of problems with step-by-step solutions, and many review questions with answers.

Computational Intelligence in Pattern Recognition - Asit Kumar Das 2020-02-19

This book features high-quality research papers presented at the 2nd International Conference on Computational Intelligence in Pattern Recognition (CIPR 2020), held at the Institute of Engineering and Management, Kolkata, West Bengal, India, on 4–5 January 2020. It includes practical development experiences in various areas of data analysis and pattern recognition, focusing on soft computing technologies, clustering and classification algorithms, rough set and fuzzy set theory, evolutionary computations, neural science and neural network systems, image processing, combinatorial pattern matching, social network analysis, audio and video data analysis, data mining in dynamic environments, bioinformatics, hybrid computing, big data analytics and deep learning. It also provides innovative solutions

to the challenges in these areas and discusses recent developments. *Optimization Algorithms on Matrix Manifolds -* P.-A. Absil 2009-04-11

Many problems in the sciences and engineering can be rephrased as optimization problems on matrix search spaces endowed with a so-called manifold structure. This book shows how to exploit the special structure of such problems to develop efficient numerical algorithms. It places careful emphasis on both the numerical formulation of the algorithm and its differential geometric abstraction--illustrating how good algorithms draw equally from the insights of differential geometry, optimization, and numerical analysis. Two more theoretical chapters provide readers with the background in differential geometry necessary to algorithmic development. In the other chapters, several well-known optimization methods such as steepest descent and conjugate gradients are generalized to abstract manifolds. The book provides a generic development of each of these methods, building upon the material of the geometric chapters. It then guides readers through the calculations that turn these geometrically formulated methods into concrete numerical algorithms. The state-of-the-art algorithms given as examples are competitive with the best existing algorithms for a selection of eigenspace problems in numerical linear algebra. Optimization Algorithms on Matrix Manifolds offers techniques with broad applications in linear algebra, signal processing, data mining, computer vision, and statistical analysis. It can serve as a graduate-level textbook and will be of interest to applied mathematicians, engineers, and computer scientists.

# Tensor Analysis and Elementary Differential Geometry for Physicists and Engineers - Hung Nguyen-Schäfer 2016-08-16

This book presents tensors and differential geometry in a comprehensive and approachable manner, providing a bridge from the place where physics and engineering mathematics end, and the place where tensor analysis begins. Among the topics examined are tensor analysis, elementary differential geometry of moving surfaces, and k-differential forms. The book includes numerous examples with solutions and concrete calculations, which guide readers through these complex topics step by step. Mindful of the practical needs of engineers and physicists, book favors simplicity over a more rigorous, formal approach. The book shows readers how to work with tensors and differential geometry and how to apply them to modeling the physical and engineering world. The authors provide chapter-length treatment of topics at the intersection of advanced mathematics, and physics and engineering: • General Basis and Bra-Ket Notation • Tensor Analysis • Elementary Differential Geometry • Differential Forms • Applications of Tensors and Differential Geometry • Tensors and Bra-Ket Notation in Quantum Mechanics The text reviews methods and applications in computational fluid dynamics; continuum mechanics; electrodynamics in special relativity; cosmology in the Minkowski four-dimensional space time; and relativistic and non-relativistic quantum mechanics. Tensor Analysis and Elementary Differential Geometry for Physicists and Engineers benefits research scientists and practicing engineers in a variety of fields, who use tensor analysis and differential geometry in the context of applied physics, and electrical and mechanical engineering. It will also interest graduate students in applied physics and engineering.

#### Artificial Intelligence in Medical Imaging - Erik R. Ranschaert 2019-01-29

This book provides a thorough overview of the ongoing evolution in the application of artificial intelligence (AI) within healthcare and radiology, enabling readers to gain a deeper insight into the technological background of AI and the impacts of new and emerging technologies on medical imaging. After an introduction on game changers in radiology, such as deep learning technology, the technological evolution of AI in computing science and medical image computing is described, with explanation of basic principles and the types and subtypes of AI. Subsequent sections address the use of imaging biomarkers, the development and validation of AI applications, and various aspects and issues relating to the growing role of big data in radiology. Diverse real-life clinical applications of AI are then outlined for different body parts, demonstrating their ability to add value to daily radiology practices. The concluding section focuses on the impact of AI on radiology and the implications for radiologists, for example with respect to training. Written by radiologists and IT professionals, the book will be of high value for radiologists, medical/clinical physicists, IT specialists, and imaging informatics professionals.

**Vectors, Tensors and the Basic Equations of Fluid Mechanics** - Rutherford Aris 2012-08-28 Introductory text, geared toward advanced undergraduate and graduate students, applies mathematics of

Cartesian and general tensors to physical field theories and demonstrates them in terms of the theory of fluid mechanics. 1962 edition.

A General Relativity Workbook - Thomas A. Moore 2015-03-06

*Introduction to Vector and Tensor Analysis - Robert C. Wrede 2013-01-30* 

Examines general Cartesian coordinates, the cross product, Einstein's special theory of relativity, bases in general coordinate systems, maxima and minima of functions of two variables, line integrals, integral theorems, and more. 1963 edition.

Advances in Interdisciplinary Engineering - Mukul Kumar 2020-08-14

This book presents select proceedings of the International Conference on Future Learning Aspects of Mechanical Engineering (FLAME 2018). The book discusses interdisciplinary areas such as automobile engineering, mechatronics, applied and structural mechanics, bio-mechanics, biomedical instrumentation, ergonomics, biodynamic modeling, nuclear engineering, agriculture engineering, and farm machineries. The contents of the book will benefit both researchers and professionals.

## **TEXTBOOK OF TENSOR CALCULUS AND DIFFERENTIAL GEOMETRY** - PRASUN KUMAR NAYAK 2011-12-23

Primarily intended for the undergraduate and postgraduate students of mathematics, this textbook covers both geometry and tensor in a single volume. This book aims to provide a conceptual exposition of the fundamental results in the theory of tensors. It also illustrates the applications of tensors to differential geometry, mechanics and relativity. Organized in ten chapters, it provides the origin and nature of the tensor along with the scope of the tensor calculus. Besides this, it also discusses N-dimensional Riemannian space, characteristic peculiarity of Riemannian space, intrinsic property of surfaces, and properties and transformation of Christoffel's symbols. Besides the students of mathematics, this book will be equally useful for the postgraduate students of physics. KEY FEATURES: Contains 250 worked out examples Includes more than 350 unsolved problems Gives thorough foundation in Tensors

#### Computational Intelligence in Pattern Recognition - Asit Kumar Das 2021-09-04

This book features high-quality research papers presented at the 3rd International Conference on Computational Intelligence in Pattern Recognition (CIPR 2021), held at the Institute of Engineering and Management, Kolkata, West Bengal, India, on 24 – 25 April 2021. It includes practical development experiences in various areas of data analysis and pattern recognition, focusing on soft computing technologies, clustering and classification algorithms, rough set and fuzzy set theory, evolutionary computations, neural science and neural network systems, image processing, combinatorial pattern

matching, social network analysis, audio and video data analysis, data mining in dynamic environments, bioinformatics, hybrid computing, big data analytics and deep learning. It also provides innovative solutions to the challenges in these areas and discusses recent developments.

#### **Tensor Calculus for Physics** - Dwight E. Neuenschwander 2015

It is an ideal companion for courses such as mathematical methods of physics, classical mechanics, electricity and magnetism, and relativity.--Gary White, editor of The Physics Teacher "American Journal of Physics"

### **Deep Learning and Convolutional Neural Networks for Medical Image Computing** - Le Lu 2017-07-12

This book presents a detailed review of the state of the art in deep learning approaches for semantic object detection and segmentation in medical image computing, and large-scale radiology database mining. A particular focus is placed on the application of convolutional neural networks, with the theory supported by practical examples. Features: highlights how the use of deep neural networks can address new questions and protocols, as well as improve upon existing challenges in medical image computing; discusses the insightful research experience of Dr. Ronald M. Summers; presents a comprehensive review of the latest research and literature; describes a range of different methods that make use of deep learning for object or landmark detection tasks in 2D and 3D medical imaging; examines a varied selection of techniques for semantic segmentation using deep learning principles in medical imaging; introduces a novel approach to interleaved text and image deep mining on a large-scale radiology image database.

#### Schaums Outline of Tensor Calculus - David C. Kay 2011-02-11

The ideal review for your tensor calculus course More than 40 million students have trusted Schaum's Outlines for their expert knowledge and helpful solved problems. Written by renowned experts in their respective fields, Schaum's Outlines cover everything from math to science, nursing to language. The main feature for all these books is the solved problems. Step-by-step, authors walk readers through coming up with solutions to exercises in their topic of choice. 300 solved problems Coverage of all course fundamentals Effective problem-solving techniques Complements or supplements the major logic textbooks Supports all the major textbooks for tensor calculus courses

Tensor Calculus Made Simple - Taha Sochi 2016-12-09

This book is about tensor analysis. It consists of 169 pages. The language and method used in presenting the ideas and techniques of tensors make it very suitable as a textbook or as a reference for an introductory course on tensor algebra and calculus or as a guide for self-studying and learning.