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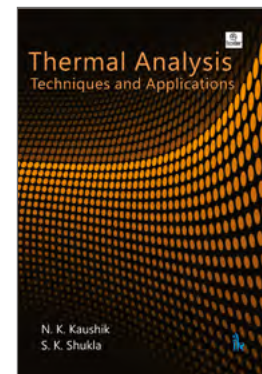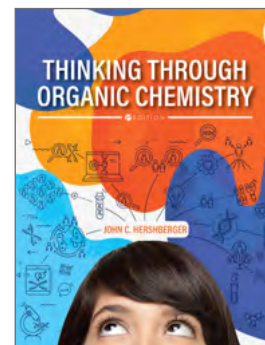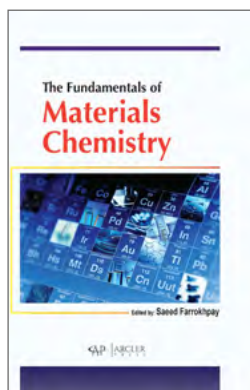
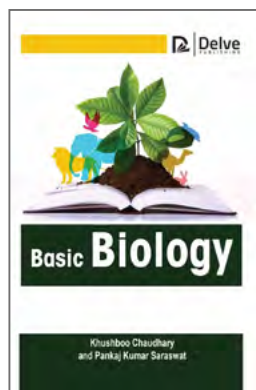Salem Press - *not for sale in South Asia, South East Asia, Japan & North Korea*

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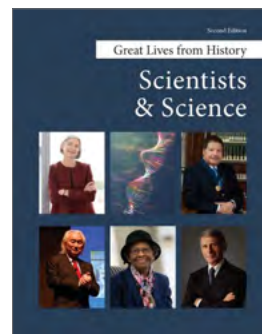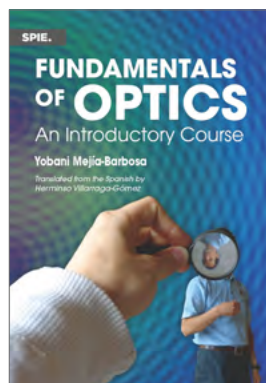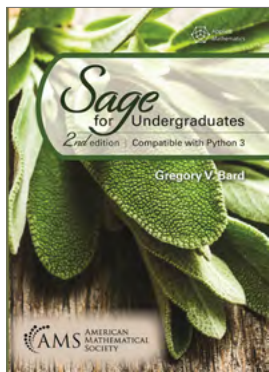
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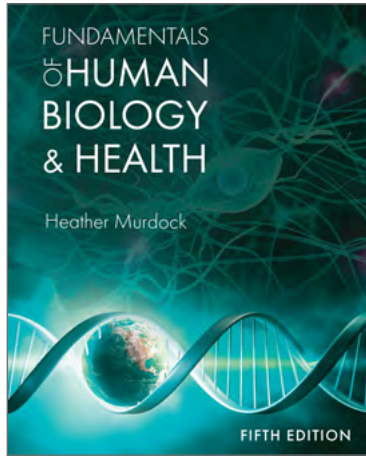
FUNDAMENTALS OF HUMAN BIOLOGY & HEALTH
Fifth Edition
Heather Murdock

Gives students a solid understanding of how human cells, tissues, organs, organ systems, and whole organisms operate. The material includes clear, concise information covering the main physiological systems in the human body, their interconnections, and what individuals can do to maintain healthy bodies and lifestyles.

The text explores how and why we study biology, and where human beings fit into the amazing diversity of life. There is also coverage of basic chemistry as it relates to the study of biology. After a tour of the typical human cell, the text provides information on different tissues and organ systems. This includes relevant disorders, diseases, drugs, nutrition, and various health issues. Subsequent material addresses genetics, evolution, ecology, and conservation.

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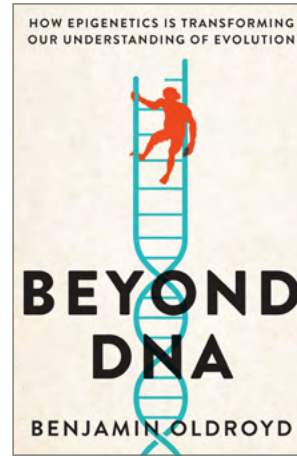
BEYOND DNA
How Epigenetics is Transforming our Understanding of Evolution
Benjamin Oldroyd

For nearly a hundred years evolutionary biologists have understood that evolution proceeds by substituting better genes for less good ones. But consensus is growing that this is not the whole story: geneticists are now revealing that spores, sperm, pollen and ova are packed with personalised genetic information that plays an important role in offspring development and has lifelong effects. This epigenetic - or 'extra-genetic'- inheritance therefore makes significant contributions to evolutionary processes.

Benjamin Oldroyd explains how a greater appreciation of the role of epigenetics is helping to solve a multitude of previously intractable problems in evolutionary biology - puzzles as varied as why invasive plants and animals can rapidly adapt to changes in their environment, how worker bees and queen bees can develop from the same egg, and why cancer becomes more common as we age.

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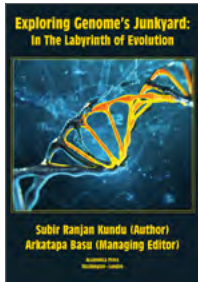
EXPLORING GENOME'S JUNKYARD

In the Labyrinth of Evolution
Subir Ranjan Kundu

Narrates the progress of biological evolution, beginning with the conceptual introspection of gene and continuing with the contemporary understanding of the structural and function aspects of the human genome.
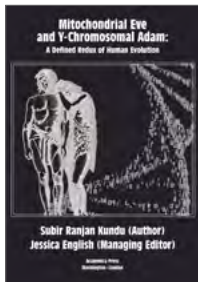
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MITOCHONDRIAL EVE AND Y-CHROMOSOMAL ADAM

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*Subir Ranjan Kundu*

Discusses theoretical ideas, interpretations, and paleontological evidence to narrate the origin and evolutionary story of Sapiens through the transitional stages of archaic human species involved in the evolutionary pilgrimage, from the great apes and to modern humans.

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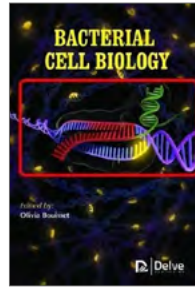
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BACTERIAL CELL BIOLOGY

Edited by Olivia Bouisset

Edited by experts, this book includes contributions discussing dimensional organisation of the bacterial cell and various subcellular structures found in bacteria. Providing an integrated collection of contributions from leading researchers and scientists, this book will be of invaluable reference for researchers and of general use to teachers, students, and scientists in bacterial cell biology.

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BASIC BIOLOGY

Khushboo Chaudhary & Pankaj Kumar Saraswat

As a field of science, biology helps us understand the living world and the ways its many species function, evolve, and interact. Advances in medicine, agriculture, biotechnology, and many other areas of biology have brought improvements in the quality of life. The goal of this book is to assist students to understand the concepts of the field.

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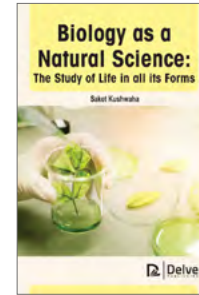
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BIOLOGY AS A NATURAL SCIENCE

The Study of Life in All Its Forms
Saket Kushwaha

Provides an introduction to biology. This book sheds light on the concept of the science of life and its chemical basis. It also explains cells, genes, heredity, the diversity of life, and nervous system, sensory system, and immune system.

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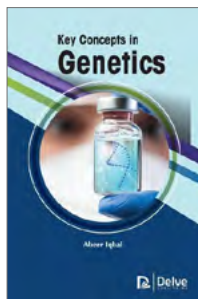
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CELL TECHNOLOGY
Khushboo Chaudhary

Helps students understand the concepts of this vast field. Topics covered are inclusive but not limited to cell biology, cell biochemistry, cell enzymology, cell immunology, cell molecular, cell genetics, cell microbiology, cell metabolic, biotechnology, plant biotechnology, animal biotechnology, bioinstrumentation and techniques.

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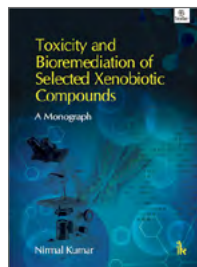
KEY CONCEPTS IN GENETICS
Abeer Iqbal

Explains in detail key genetic terms. Genetics is the scientific study of genes and heredity - of how certain qualities or traits are passed from parents to offspring as a result of changes in DNA sequence.

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The exercises and background material found in this title guide hands-on investigation into mechanisms of biological processes. Activities explore basic lab techniques and biotechnologies, and provide students an introduction to biochemistry, genetics, cellular biology, and microbiology.

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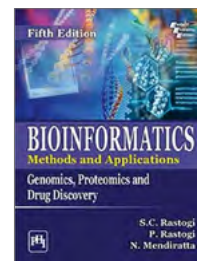
BIOINFORMATICS
Methods and Applications: Genomics, Proteomics and Drug Discovery, Fifth Edition
S.C. Rastogi, P. Rastogi & N. Mendiratta

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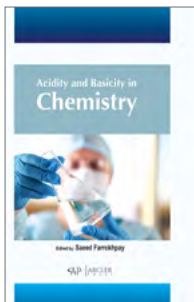
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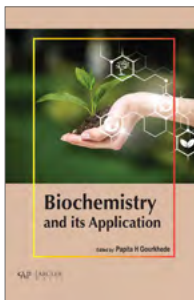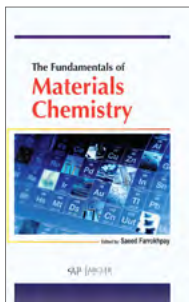
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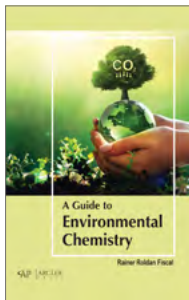
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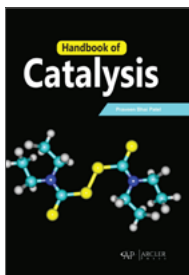
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Provides an overview of enzymes, including a description of the field's essential concepts, how to use various technologies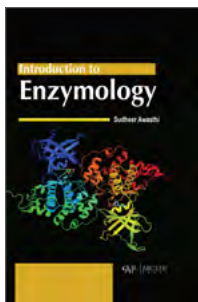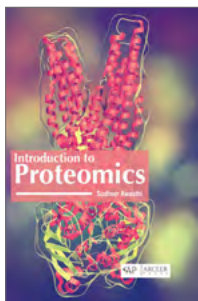 and equipment, and examples of applications in human health and disease. This book offers an easy-to-understand overview of ideas, guidelines, and, in particular, complex instrumentation techniques.

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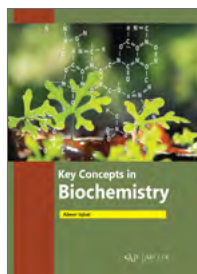
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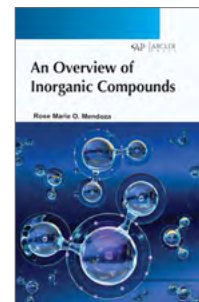**9781774693810 Hardback £185.00 / €205.00**

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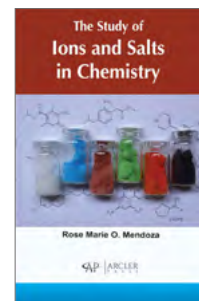
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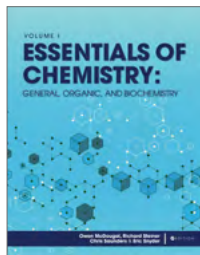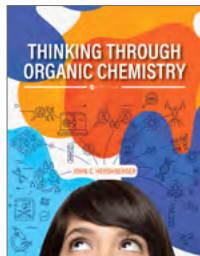
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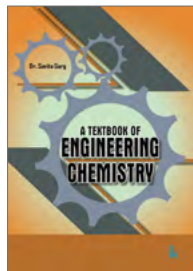
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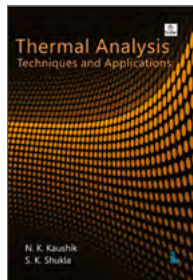
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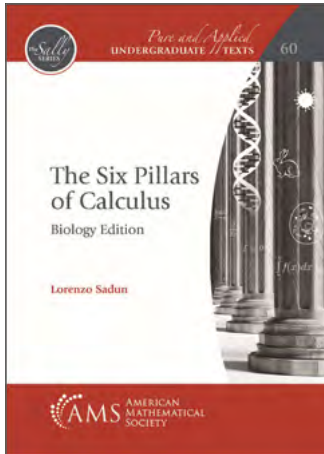9781470469962 Paperback £90.00 / €100.00

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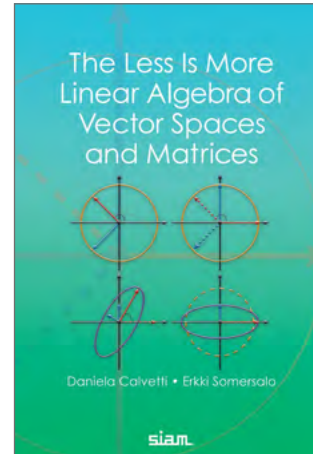
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Designed for a proof-based course on linear algebra, this rigorous and concise textbook intentionally introduces vector spaces, inner products, and vector and matrix norms before Gaussian elimination and eigenvalues so students can quickly discover the singular value decomposition (SVD) - arguably the most enlightening and useful of all matrix factorizations. Gaussian elimination is then introduced after the SVD and the four fundamental subspaces and is presented in the context of vector spaces rather than as a computational recipe.
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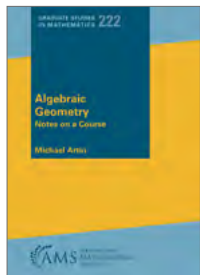
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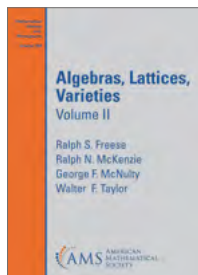**9781470471118 Paperback £78.00 / €86.00**

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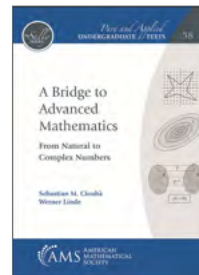
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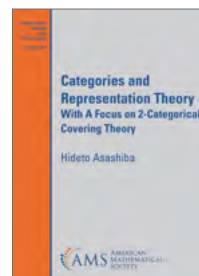
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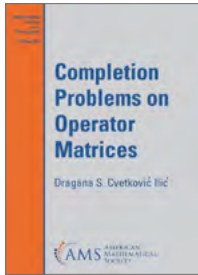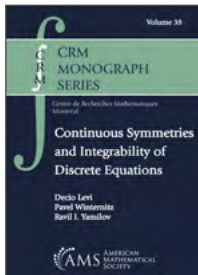## CONTINUOUS SYMMETRIES AND INTEGRABILITY OF DISCRETE EQUATIONS

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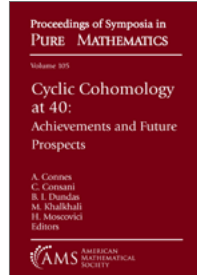
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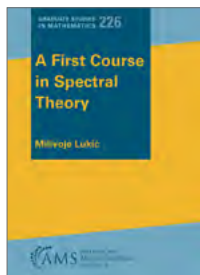
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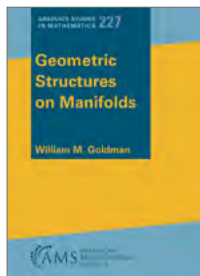
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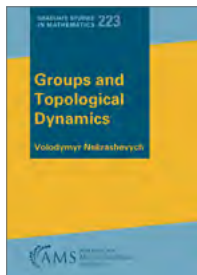
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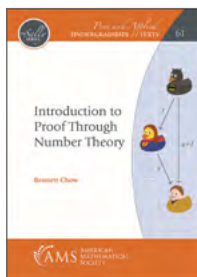
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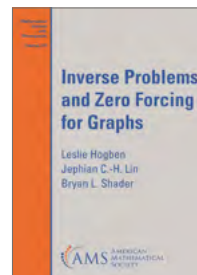
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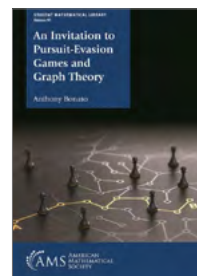
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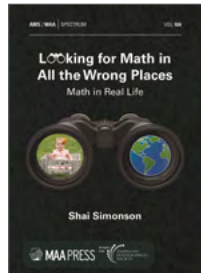In this thoroughly beguiling book, Shai Simonson applies mathematical tools in a variety of contexts that arise in everyday life to prove his claim that maths is, literally, everywhere. Simonson applies his mathematical cast of mind to show that there are unexpected depths and connections when we look in the 'wrong' places in the right way.

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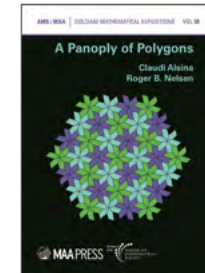
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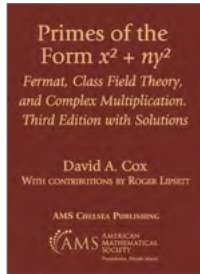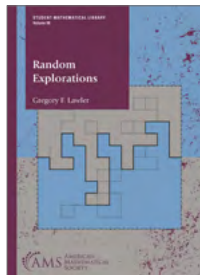Examines when a prime p can be written in the form $x^2 + ny^2$. The book begins at an elementary level with results of Fermat and Euler and then discusses the work of Lagrange, Legendre and Gauss on quadratic reciprocity and the genus theory of quadratic forms.

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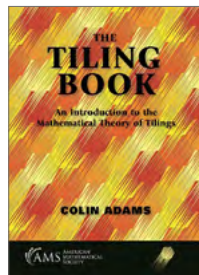
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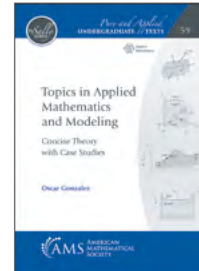
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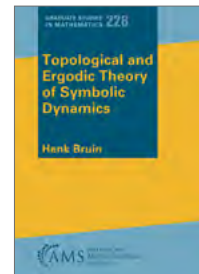
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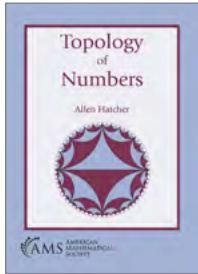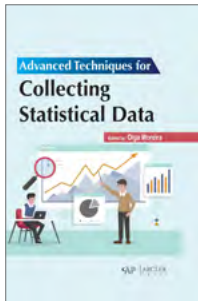### ADVANCED TECHNIQUES FOR COLLECTING STATISTICAL DATA

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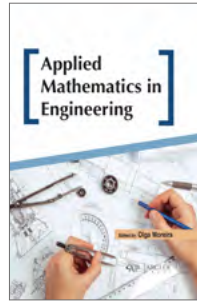
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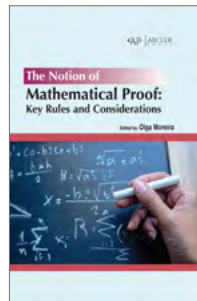
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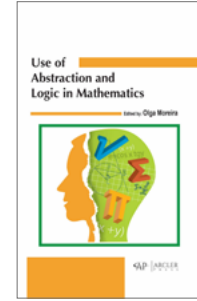
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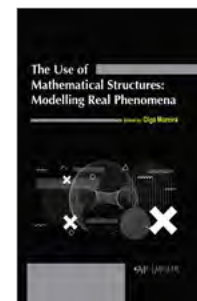
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Offers a concise and theoretical introduction to linear algebra with a plethora of examples, a wide variety of problems, and preparation for more advanced mathematics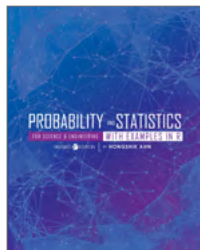 rather than external applications. This text provides purely computational exercises and theoretical problems ranked by difficulty, allowing for a balance between computational practice and the development of critical thinking and theoretical mathematical thought.

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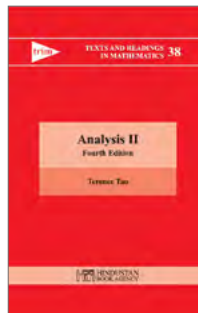**9798823308274 Paperback £106.00 / €117.00**

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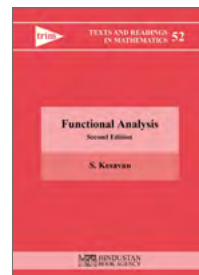
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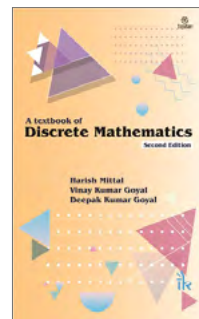
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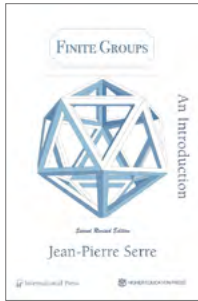
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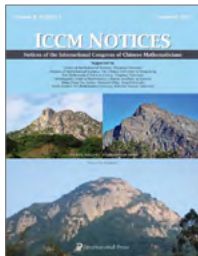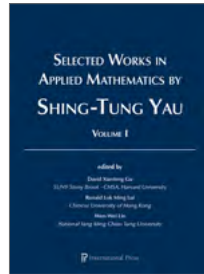
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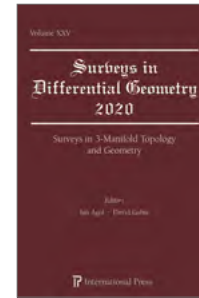
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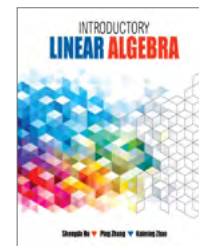
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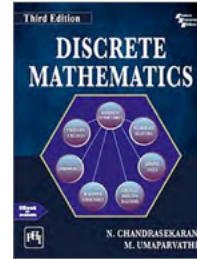
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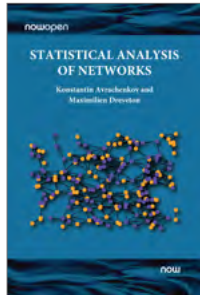*N. Chandrasekaran & M. Umaparvathi*

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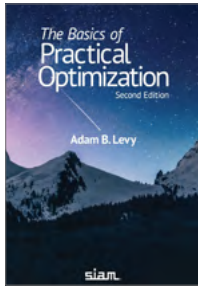
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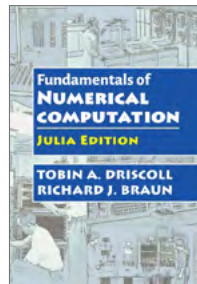9781611977349 Hardback £123.00 / €136.00

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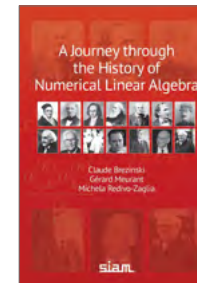
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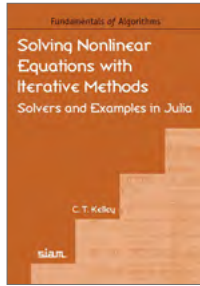
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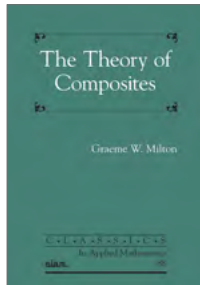
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Brings together the mathematical and numerical frameworks needed for developing digital twins (DTs). Starting from the basics - probability, statistics, numerical methods, opti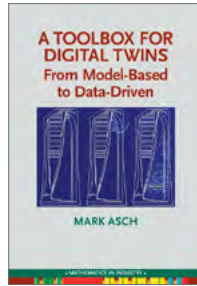mization, machine learning - and moving on to data assimilation, inverse problems, and Bayesian uncertainty quantification, the book provides a comprehensive toolbox for DTs.

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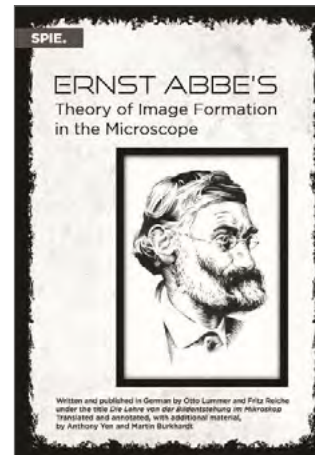
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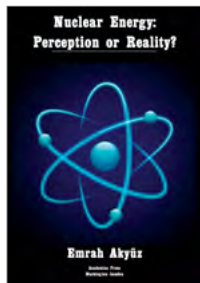
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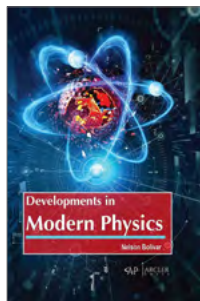
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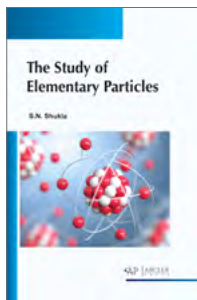
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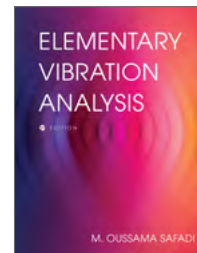
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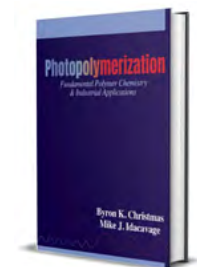
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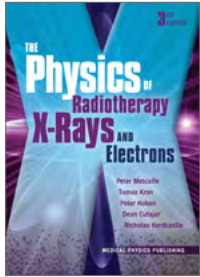Provides a detailed treatment of various aspects of atmospheric phenomena and their underlying physical principles. This book offers a study of both physical and dynamical aspects of the atmosphere, focusing on equipping students with a thorough understanding of weather and climate.

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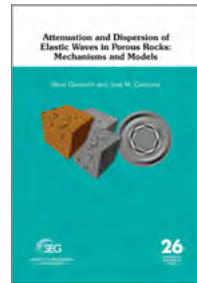
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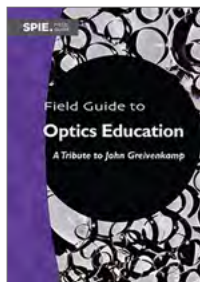
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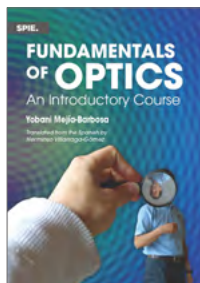
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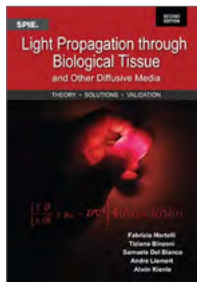
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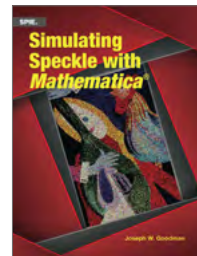
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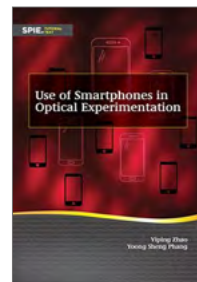
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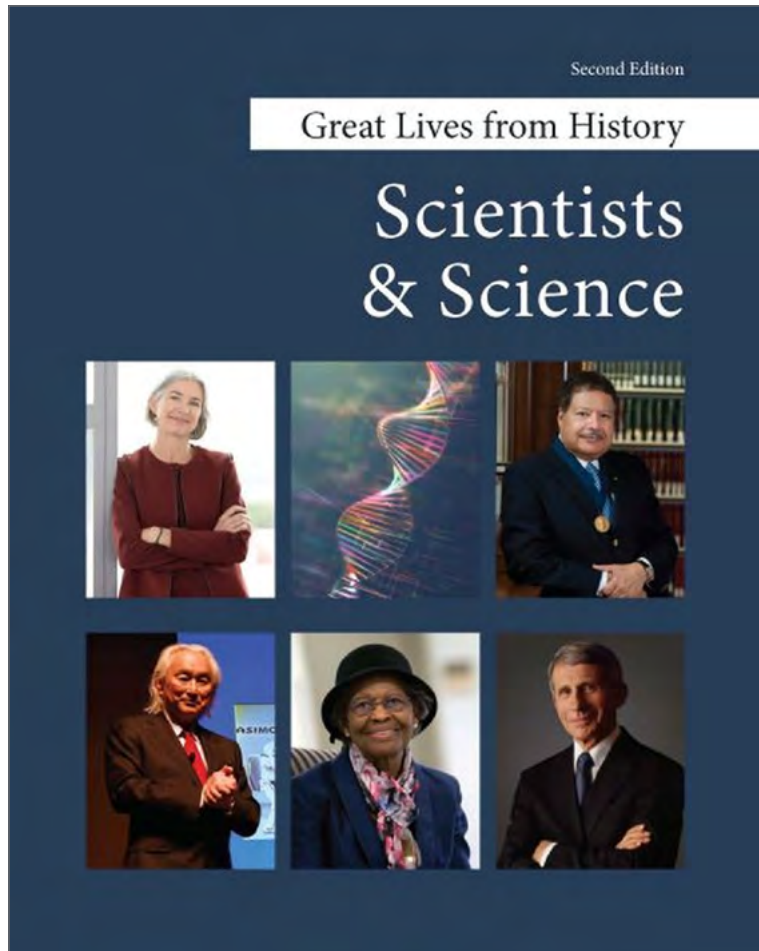
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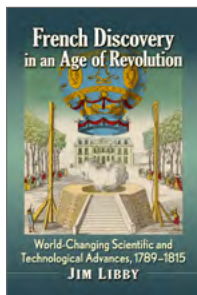
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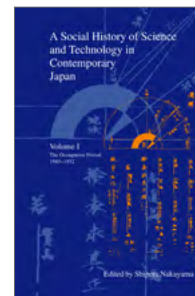
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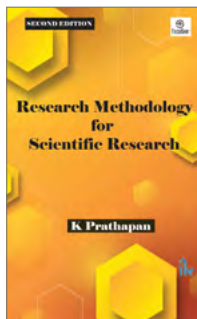Takes readers into inspiring classroom communities in which all students are invited and encouraged to engage in the work of science. An illuminating series of real-time classroom scenes demonstrate flexible teaching approaches and instructional pivots.

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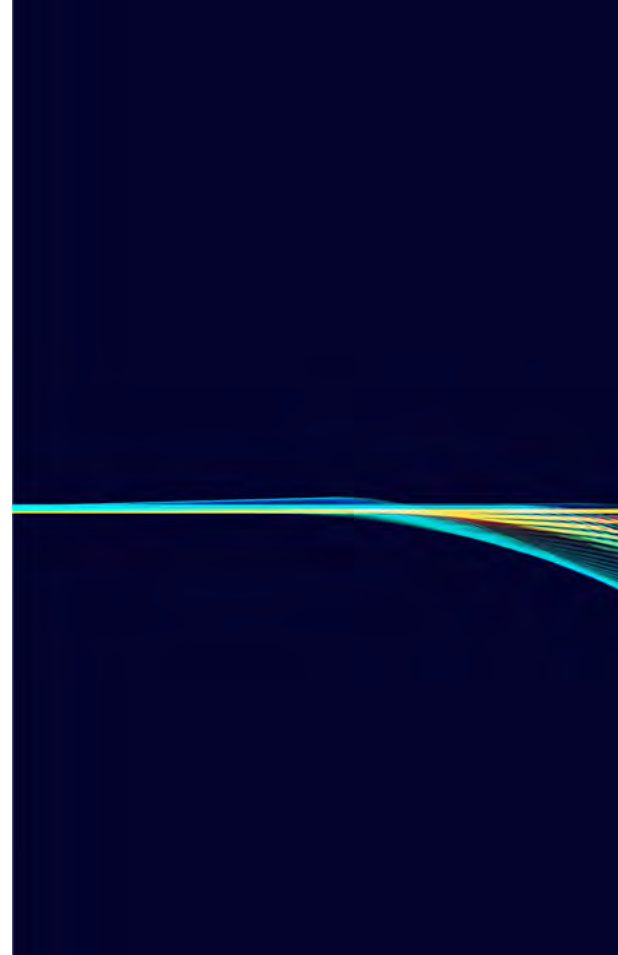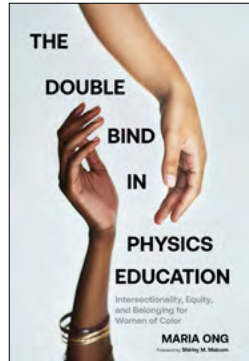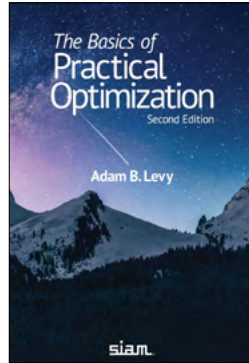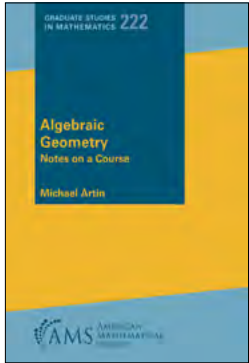
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