

# New in the Library

January/February 2021



The Abdus Salam  
International Centre  
for Theoretical Physics



2020

**Effective Science Communication**  
Sam Illingworth & Grant Allen

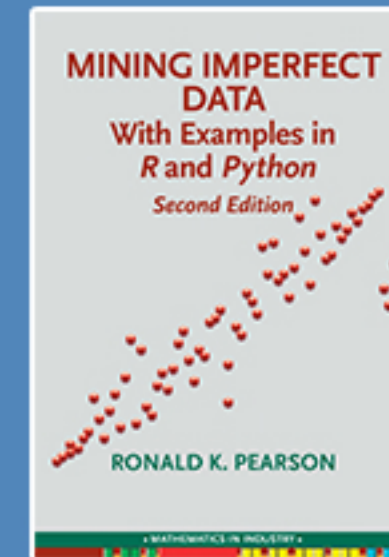
"A practical guide to surviving as a scientist". Being a scientist in the 21st century can be extremely demanding. Get some useful hints on how to disseminate your research findings in an engaging manner via scientific publications, press releases, social media and outreach.



2020

**Investing in Science**  
Massimo Florio

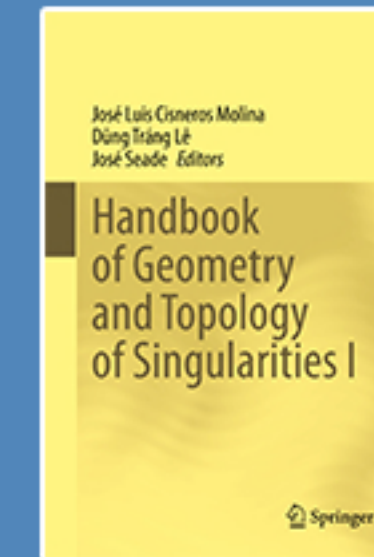
"Cost-benefit analysis is typically used to evaluate reasonably small projects. This path-breaking study goes far beyond even the conventional mega-project to focus on entire research infrastructures that cause worldwide effects"  
Per-Olov Johansson, Stockholm School of Economics



2020

**Mining Imperfect Data**  
Ronald K. Pearson

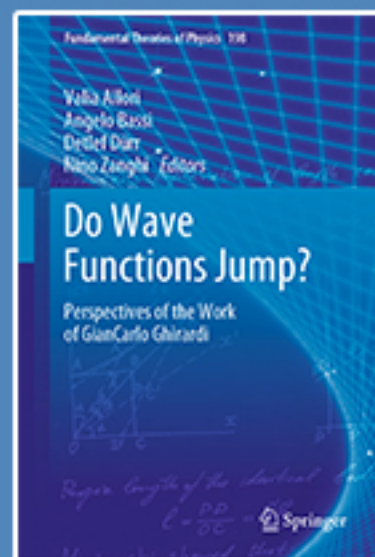
Most of the total effort in a typical data analysis project is taken up with data preparation. This book helps scientists and researchers identify and treat data anomalies, their potential consequences if left undetected, and options for dealing with them.



2020

**Handbook of Geometry and Topology of Singularities I**  
editors: José Luis Cisneros-Molina, Lê Dũng Tráng, José Seade

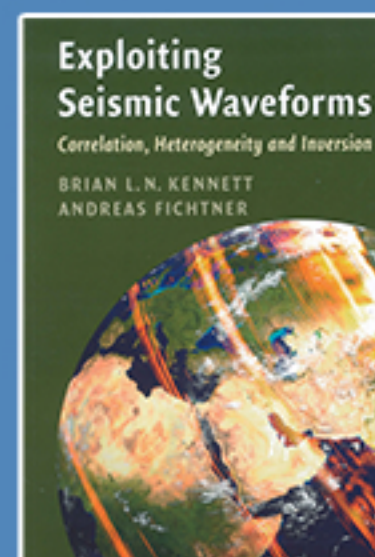
Edited by three ICTP mathematicians, this 1<sup>st</sup> volume in a series provides an in-depth and reader-friendly survey of some of the foundational aspects of singularity theory. **Target:** graduate students and newcomers to the topic.



2021

**Do Wave Functions Jump? Perspectives of the work of GianCarlo Ghirardi**  
editors: Valia Allori, Angelo Bassi, Detlef Dürr, Nino Zanghi

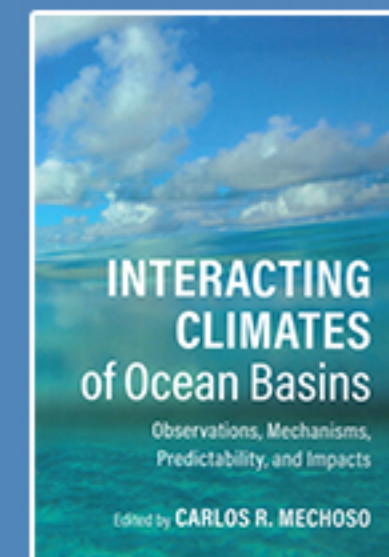
A tribute to the scientific legacy of one of the most influential scientists in the field of modern foundations of quantum theory and a crucial figure in creating synergies between the Physics Dept. of the Trieste University and ICTP.



2021

**Exploiting Seismic Waveforms**  
Brian L.N. Kennett & Andreas Fichtner

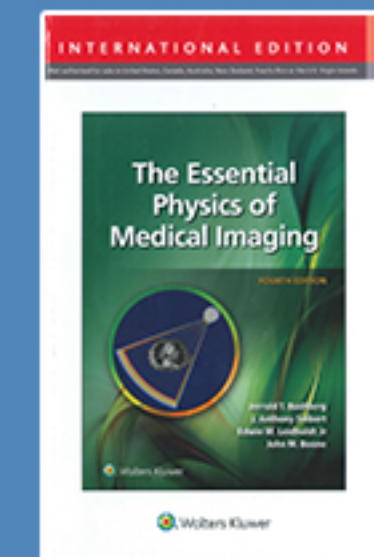
A discussion on higher frequency seismology in the context of heterogeneity and multi-scale heterogeneity. A combination of theory and practical examples which covers recent developments in seismology not found in other books.



2020

**Interacting Climates of Ocean Basins**  
edited by Carlos R. Mechoso

Discover through the chapters by eminent researchers how interactions among the climates in different ocean basins are key contributors to global climate variability.



2021

**The Essential Physics of Medical Imaging**  
Jerrold T. Bushberg et al.

A cornerstone text in the field that in its 4th edition follows the tradition of a clear and comprehensive presentation of the physical principles and operational aspects of medical imaging.



2020

**Real Algebraic Varieties**  
Frédéric Mangolte

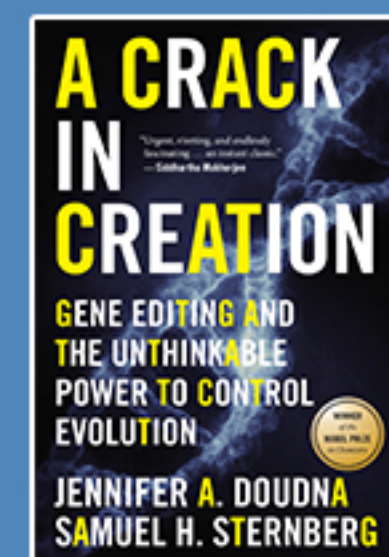
The first book to introduce topological methods of the theory of real algebraic varieties to non-specialists. In a panorama of classical knowledge, it moves from major developments in the topology and geometry of varieties of dimension two and three to curves, the central subject of Hilbert's famous sixteenth problem.



2021

**100% Clean, Renewable Energy**  
Mark Z. Jacobson

"Shines a bright light illuminating the path forward, painstakingly detailing, with numbers and facts, how we can decarbonize our energy infrastructure, create a cleaner environment and sustain a healthy, green economy."  
Michael E. Mann, Penn State University



2018

**A Crack in Creation**  
Jennifer A. Doudna & Samuel H. Sternberg

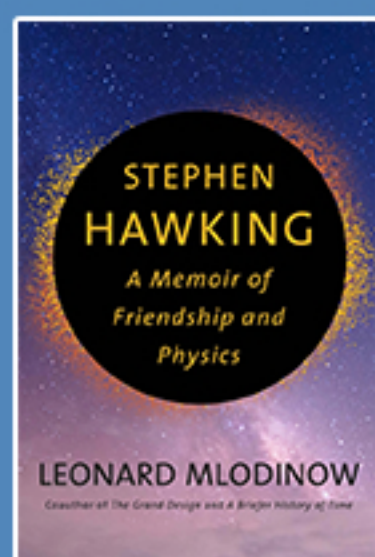
An invaluable account of the authors' role in the revolution that is genome editing. The thrilling story of a revolutionary discovery and the enormous responsibility that comes with the power to rewrite the code of life.



2020

**Spectra of Atoms and Molecules**  
Peter F. Bernath

This 4th updated edition remains the gold standard of spectroscopy texts and emphasizes its fundamental principles with the primary goal of teaching the interpretation of spectra.



2020

**Stephen Hawking A Memoir of Friendship and Physics**  
Leonard Mlodinow

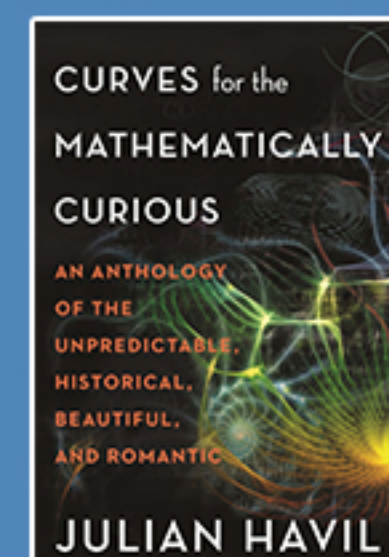
Get inspired by this intimate exploration of Stephen Hawking as man, friend, and physicist. A unique and deeply personal portrayal that captures his indomitable spirit.



2021

**Tau Functions and their Applications**  
John Harnad & Ferenc Balogh

Grasp the only monograph surveying tau functions, the key to a very active and important field of current research. **Target:** graduate students and researchers who wish to become acquainted with the topic.



2019

**Curves for the Mathematically Curious**  
Julian Havil

Every curve has a story worth telling. Ten mathematical curves, selected by the author for their significance, mathematical interest, and beauty. A rigorous and enriching mathematical experience for anyone interested in curves, the book is designed so that readers can follow the details with pencil and paper.



2020

**Scienziati e Guerra Fredda**  
Elisabetta Bini & Elisabetta Vezzosi

Il volume, basato su documenti in gran parte inediti, ricostruisce le forme più interessanti di internazionalismo scientifico tra i ricercatori del blocco occidentale, orientale e del Terzo Mondo in quel periodo. Tra queste l'utopia di Paolo Budinich, la visione di Abdus Salam e la creazione dell'ICTP.