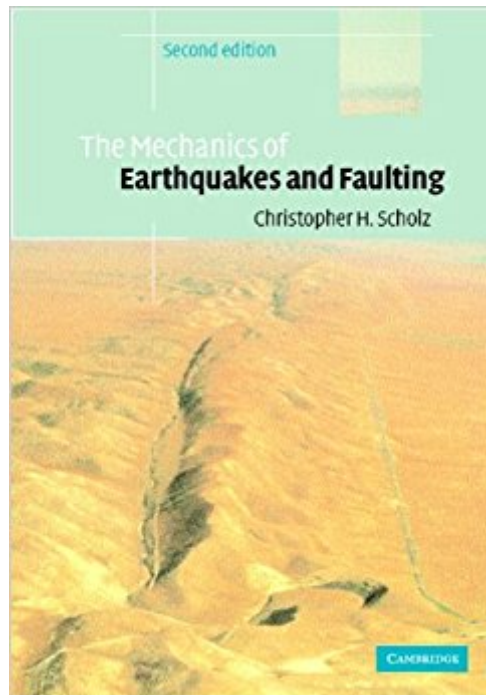


The book was found

# The Mechanics Of Earthquakes And Faulting



## Synopsis

Our understanding of earthquakes and faulting processes has developed significantly since publication of the successful first edition of this book in 1990. This revised edition, first published in 2002, was therefore thoroughly up-dated whilst maintaining and developing the two major themes of the first edition. The first of these themes is the connection between fault and earthquake mechanics, including fault scaling laws, the nature of fault populations, and how these result from the processes of fault growth and interaction. The second major theme is the central role of the rate-state friction laws in earthquake mechanics, which provide a unifying framework within which a wide range of faulting phenomena can be interpreted. With the inclusion of two chapters explaining brittle fracture and rock friction from first principles, this book is written at a level which will appeal to graduate students and research scientists in the fields of seismology, physics, geology, geodesy and rock mechanics.

## Book Information

File Size: 32373 KB

Print Length: 496 pages

Simultaneous Device Usage: Up to 4 simultaneous devices, per publisher limits

Publisher: Cambridge University Press; 2 edition (May 2, 2002)

Publication Date: May 2, 2002

Sold by: Digital Services LLC

Language: English

ASIN: B00CF0JLYE

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Enabled

Lending: Not Enabled

Enhanced Typesetting: Not Enabled

Best Sellers Rank: #1,092,041 Paid in Kindle Store (See Top 100 Paid in Kindle Store) #37

in Books > Science & Math > Earth Sciences > Geology > Structural #64 in Kindle Store >

Kindle eBooks > Nonfiction > Science > Earth Sciences > Earthquakes & Volcanoes #65

in Kindle Store > Kindle eBooks > Nonfiction > Science > Earth Sciences > Geophysics

## Customer Reviews

As a physicist that is working hard on the mechanics of earthquake initiation, I have read and

studied the book with a strong interest, and I found it extremely important from the scientific point of view. Although I particularly have concerns and criticisms referring to some topics in sections 1.1.2 (Griffith theory) and 1.1.3 (Fracture mechanics), I understand that Prof. Scholz followed the traditional approach on these topics, and I think the book as a whole is very good. I think those working on this subject should read and study carefully this book. Francisco G. Emmerich  
Federal University of Espirito Santo  
Brazil

Great book to understand how faulting occurs from the microscopic to the macroscopic level. Although there are MANY typos that need fixing throughout the entire book. Feels like a 3rd edition is in order.

good reference for engineer's

It came on the last possible day of the given range, but it was in very nice condition. No complaints.

From the point of view of content, the book is as good as the previous edition. The criticism below (and the missing two stars) are entirely the fault of the publisher. The print quality and the layout of the paperback edition (7th printing, 2012) are well below average, considering the price of the book. Most black and white figures look like bad photocopies of old ones (the photos especially are virtually unusable) and the "new" color figures (including the cover itself) are very pixelated. In fact, all figures appear to be enlargement of previous ones without any redrawing. The printed text is closer to medium gray than to black and the chosen font type and size make it more difficult to read than the old edition (even though the latter had a smaller font size). It also has the peculiarity of not having any blank pages in front, and plenty of blank pages in the back instead, for no obvious reason whatsoever. The pages are cut so that they appear shifted upwards, with a very small margin at the top and a wider one at the bottom, which gives the book a very cheap feeling and adds further distraction when trying to read it. Finally, the number of pages in the old and new edition are about the same, the amount of content is about the same, but the new edition is significantly thicker, taller and wider than the old one (which was a very convenient size to carry around instead). From the print quality, the book is worth at best \$30, not \$90.

Interesting premise; nicely drawn characters; well paced story. Normally I would have given this book a five star rating....BUT.... unusually for me, I had a bit of trouble with the technical information.

Some sections required 2 or 3 rereadings; I appreciate the scientific explanations which I feel add greatly to the enjoyment of such stories. However, I felt that these were written just a bit over the heads of average readers. I do plan to reread the book.....something I do when I have enjoyed the reading.

Christopher Scholz has written a welcome update to the classic 1990 edition of his book, and if you thought that Crustal Deformation was a field where nothing exciting happens, think again!

Substantial chunks of the book have been re-written and re-organized to bring the text bang up-to-date with the cutting edge of tectonics and rock mechanics research. The beauty of this book is that Scholz, along with his students and research associates, basically has been the cutting edge of research in this field for the past 30 years. The book therefore reads as a guide to the evolution of ideas and a personal memoir of scientific exploration, while allowing the reader to follow the same thought processes, and more fully understand what we currently think regarding these subjects. The text is a monograph, quite different from the usual condescending tone found in textbooks, and can be understood and appreciated by readers of widely differing abilities, from interested laymen to fellow researchers. Thorough explanations are given for each topic, with examples taken from actual scientific papers, putting the reader in touch with the original papers, a glaring omission in many other textbooks. The language is never more complicated than it needs to be, and Scholz's straight-forward explanations and no-nonsense style make comprehension almost too easy, leaving the reader a real feeling that one has learned something at the end, which will come as a breath of fresh air to any student that has suffered through a horribly dull and irrelevant lecture, only to remain scratching their head at the end. The book is a tribute to the intellect and longevity of the man's career, blessed as he is with a happy knack for being proven "right" by the passing of time, and continuing accumulation of research results. A classic text, and again, a must-read for anyone with a desire to know more about the planet we live on.

Prof. Scholz of Columbia summarizes the science of rock mechanics. This book is the easiest way to gain a first foothold in the physics of how faults behave. In fact, as far as I know, it may be the only way, short of attempting a PhD in geophysics. I've read it (and hope I remember at least a fraction of its contents), used it in class, and even given away a copy or two to students. If only more scientists could write as well. As a side light, Chris has also written a book for the general reader on the excitement of discovering the tectonics of Africa, *Fieldwork: A Geologist's Memoir of the Kalahari*, which I highly recommend.

[Download to continue reading...](#)

The Mechanics of Earthquakes and Faulting The Mechanics of Earthquakes and Faulting (2nd Edition) Faulting in Brittle Rocks: An Introduction to the Mechanics of Tectonic Faults Computational Fluid Mechanics and Heat Transfer, Third Edition (Series in Computational and Physical Processes in Mechanics and Thermal Sciences) Computational Fluid Mechanics and Heat Transfer, Second Edition (Series in Computational and Physical Processes in Mechanics and Thermal Sciences) Reinforced Concrete: Mechanics and Design (4th Edition) (Civil Engineering and Engineering Mechanics) Fracture and Fatigue Control in Structures: Applications of Fracture Mechanics (Prentice-Hall International Series in Civil Engineering and Engineering Mechanics) Introduction to Practical Peridynamics: Computational Solid Mechanics Without Stress and Strain (Frontier Research in Computation and Mechanics of Materials) Biofluid Mechanics, Second Edition: An Introduction to Fluid Mechanics, Macrocirculation, and Microcirculation (Biomedical Engineering) Mechanics of Materials (Computational Mechanics and Applied Analysis) Probabilistic fracture mechanics and reliability (Engineering Applications of Fracture Mechanics) Fracture Mechanics of Concrete: Applications of Fracture Mechanics to Concrete, Rock and Other Quasi-Brittle Materials Advanced Molecular Quantum Mechanics: An Introduction to Relativistic Quantum Mechanics and the Quantum Theory of Radiation (Studies in Chemical Physics) Engineering Mechanics: Statics Plus MasteringEngineering with Pearson eText -- Access Card Package (14th Edition) (Hibbeler, The Engineering Mechanics: Statics & Dynamics Series, 14th Edition) Dynamic Fracture Mechanics (Cambridge Monographs on Mechanics) Quantum Mechanics: Re-engineering Your Life With Quantum Mechanics & Affirmations National Geographic Kids Everything Volcanoes and Earthquakes: Earthshaking photos, facts, and fun! 2008 Country Profile and Guide to Vanuatu (formerly New Hebrides) - National Travel Guidebook and Handbook - Volcanoes, Earthquakes, U.S. Relations (Two CD-ROM Set) 2008 Country Profile and Guide to the Federated States of Micronesia (FSM)- National Travel Guidebook and Handbook - Kosrae, Pohnpei, Chuuk, Yap, Earthquakes, Typhoons (Two CD-ROM Set) Earthquakes (Let's-Read-and-Find-Out Science 2)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)