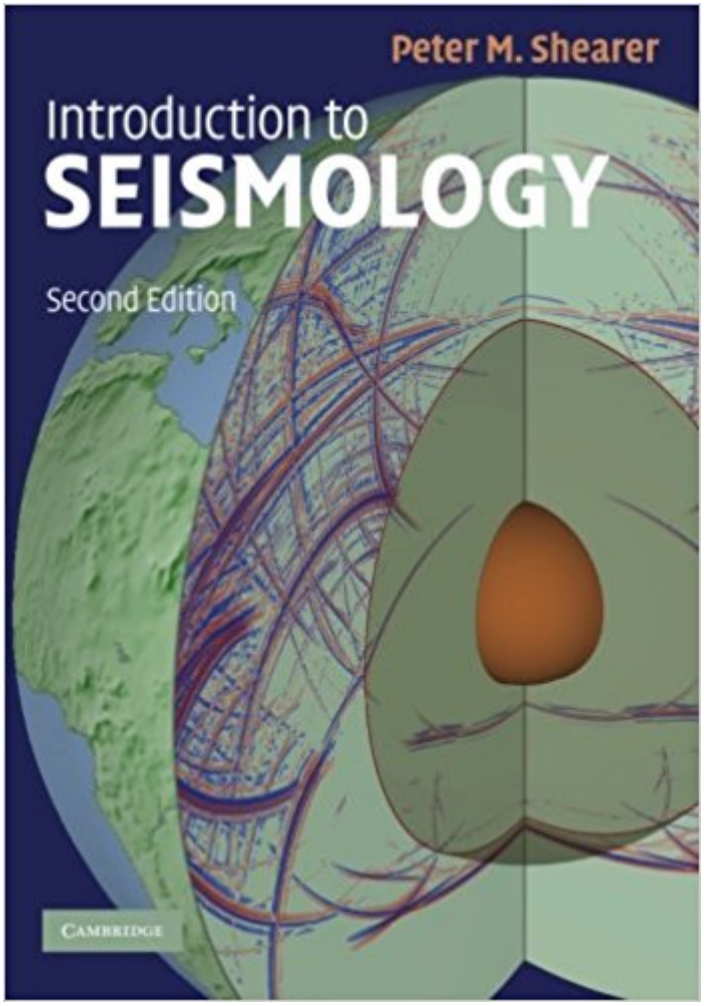
Introduction To Seismology



Synopsis

This book provides an approachable and concise introduction to seismic theory, designed as a first course for undergraduate students. It clearly explains the fundamental concepts, emphasizing intuitive understanding over lengthy derivations. Incorporating over 30% new material, this second edition includes all the topics needed for a one-semester course in seismology. Additional material has been added throughout including numerical methods, 3-D ray tracing, earthquake location, attenuation, normal modes, and receiver functions. The chapter on earthquakes and source theory has been extensively revised and enlarged, and now includes details on non-double-couple sources, earthquake scaling, radiated energy, and finite slip inversions. Each chapter includes worked problems and detailed exercises that give students the opportunity to apply the techniques they have learned to compute results of interest and to illustrate the Earth's seismic properties. Computer subroutines and datasets for use in the exercises are available at www.cambridge.org/shearer.

Book Information

Paperback: 412 pages

Publisher: Cambridge University Press; 2 edition (July 6, 2009)

Language: English

ISBN-10: 1108009107

ISBN-13: 978-0521708425

ASIN: 0521708427

Product Dimensions: 6.8 x 0.8 x 9.7 inches

Shipping Weight: 1.8 pounds (View shipping rates and policies)

Average Customer Review: 4.0 out of 5 stars 14 customer reviews

Best Sellers Rank: #430,306 in Books (See Top 100 in Books) #72 inÂ Books > Science & Math > Earth Sciences > Seismology #89 inÂ Books > Science & Math > Earth Sciences > Geophysics #100 inÂ Books > Science & Math > Earth Sciences > Earthquakes & Volcanoes

Customer Reviews

'... a concise and practical survey text that does a fine job of covering the basics ... it is ideally suited for an intermediate to advanced undergraduate class ...' Seismological Research Letters'Shearer has a knack for clear explanations and for making otherwise difficult concepts easy to understand.' EOS'As an introductory course textbook for upper-level undergraduate students it may be the best textbook available now.' Physics Today'The fundamental concepts are clearly explained,

emphasizing intuitive understanding ...’ Applied Mechanics Reviews’... an excellent introduction for non-seismologists to grasp concepts behind seismological techniques.’ Episodes’An attractive and readable way to understand how seismic methods can reveal the inner Earth and how reading the records may help to predict earthquakes.’ - New Scientist’As a textbook for a relatively advanced undergraduate course, this new edition of Shearer’s volume continues to have few peers. ...it introduces the science of seismology in a clear, logical and concise manner." - The Leading Edge"...the book is written so well that it can be expected to remain a basic Seismology text over the next decade." Pure and Applied Geophysics

The second edition incorporates 30% new material and clearly explains fundamental concepts and emphasizes intuitive understanding. Worked problems, exercises and online resources encourage students to apply techniques they have learnt, making this textbook ideal for a one-semester undergraduate course in seismology.

The printing quality was bad - it was tilted . I also have the same book bought before, but the paper quality got worse too.

This is one of six seismology books I have recently purchased. They all complement each other. This is a good book with a difficulty of level of about 3 out of 5. I have no problem with the math in it even 50 years after graduate level math courses.I bought it to evaluate data from my home built seismograph which has picked up about 25 events in two months from all over the world. There is much information in it that doesn’t require higher math.

A bit over my head (haven’t used calculus in decades). But otherwise an interesting read on how seismology works.

I love this book. It is thinner than Stein and Wysession, but equally good in quality. I have learned introductory level seismology. But I can still learn a lot when I come back to read it again.

it’s quite easy to read. you basically could finish it by yourself. the homework is interesting. There are lots of figures and tables to make things easy to follow.

It was on my husband’s wishlist. He seemed to love it even though it was a textbook. If you are

interested in Seismology or the topography of the planet...here you go.

Good

I purchased this book to teach myself seismology. It is a great introductory, so it's appropriately named. Shearer writes clearly and concisely, and the book is mostly self-contained.