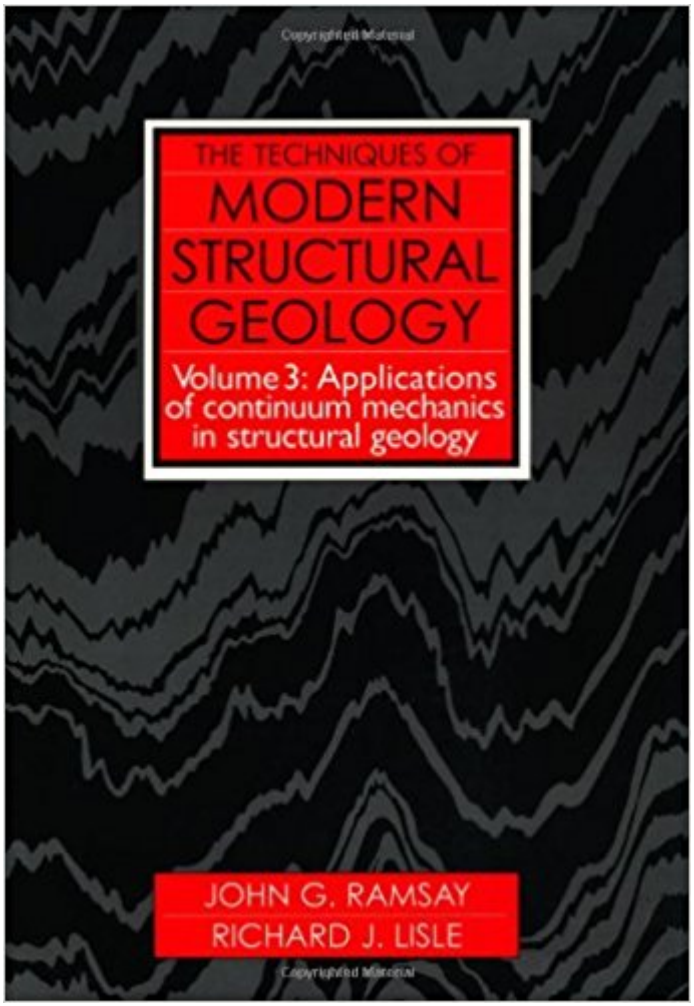
The Techniques Of Modern Structural Geology, Volume 3: Applications Of Continuum Mechanics In Structural Geology



Synopsis

Modern Structural Geology, Volume 3 gives a practical introduction to how mathematical tools (continuum mechanics) can be used to model geological structures (i.e., naturally deformed rocks). It provides a strong emphasis on the application of mathematics to solving real geological problems. This is the third volume of a highly successful textbook series. It sets out in detail many fundamental and modern research techniques, some for the first time.It is richly illustrated with photographs and diagrams of naturally deformed rocks. Very few books in the field contain even a fraction of this illustrative material.Because of the somewhat complex nature of some of the mathematical techniques, computer methods are sometimes needed to formulate solutions to the problems. These programs are fully listed in BASIC language at the end of the relevant Session, and a disk of these programs suitable for MAC and PC hardware is provided.Modern Structural Geology, Volume 3 is intended for advanced undergraduate and graduate students studying structural geology; the secondary market are mechanical and civil engineers wanting a working knowledge of earth sciences; mathematicians wanting to develop practical applications of continuum mechanics. * Volumes 1 and 2 are best-sellers and widely adopted* Mathematical modelling programs included on CD-Rom* Exercises at the end of each chapter* Superb photography

Book Information

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Customer Reviews

"...offers an excellent conclusion to the series. Like its predecessors, it is thoughtfully conceived and

carefully completed. ...a fine introduction to modern structural geology."Ã¢â ¬â ¢SCIENCE, Vol 293, 31 August 2001"Overall, Volume 3 provides many challenging examples and detailed insights into the structural deformation processes that will engage both the newcomer and the experienced practitioner in a fascinating journey of exploration. Above all, it is a book that promotes wider participation in quantitative modelling. The no-nonsense approach of this book will not only guide the uninitiatedthrough the basic principles and assumptions that underlie such methods but, with careful application,should help to accelerate the development ofphysically realistic reconstructions of geologicaldeformation."Ã¢â ¬â ¢TECTONOPHYSICS"...Ramsay and Lisle have stuck to the recipe that made Volumes 1 and 2 so successful. Once again we are treated to a beautifully illustrated book, with numerous pictures and line drawings of natural structures. ...Ramsay and Lisle go to great lengths to demonstrate how mathematical analysis relates back to structures described in the field. ...the prose is elegant, succinct and straightforward. The book progresses logically and coherently forward through an introduction to heterogeneous stress."Ã¢â ¬â ¢EPISODES"This volume continues a tradition for these volumes of excellent illustrations, a nice mix of mathematical analysis and real world examples and completely worked relevant examples. The inclusion of a CD-ROM of useful structural geology programs (and their source code in the text) is a bonus. I would recommend this volume to be purchased by all libraries and amongst those colleagues with an interest in continuum mechanical explanations of geological features." -THE AUSTRALIAN GEOLOGIST

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