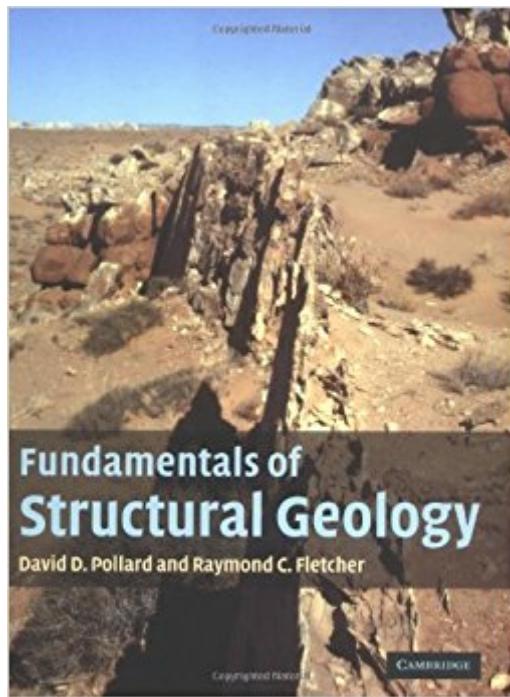


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# Fundamentals Of Structural Geology



## Synopsis

Fundamentals of Structural Geology provides a new framework for the investigation of geological structures by integrating field mapping and mechanical analysis. Assuming a basic knowledge of physical geology, introductory calculus and physics, it emphasizes the observational data, modern mapping technology, principles of continuum mechanics, and the mathematical and computational skills, necessary to quantitatively map, describe, model, and explain deformation in Earth's lithosphere. By starting from the fundamental conservation laws of mass and momentum, the constitutive laws of material behavior, and the kinematic relationships for strain and rate of deformation, the authors demonstrate the relevance of solid and fluid mechanics to structural geology. This book offers a modern quantitative approach to structural geology for advanced students and researchers in structural geology and tectonics. It is supported by a website hosting images from the book, additional colour images, student exercises and MATLAB scripts. Solutions to the exercises are available to instructors.

## Book Information

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## Customer Reviews

Instead of the classical approximation to the structural geology (field descriptions, geometrical classifications, etc.) the book tackles the issue from a numerical and "physical" point of view. Although the numerical approximation to the structural geology is not straightforward, the text is exhaustive in the explanations of the more complex concepts and mathematical foundations, and is accompanied by good self explanatory figures. The authors share in a web complementary material as exercises and Matlab codes. I strongly recommend this book to everyone planning to use

mathematical tools and programming in relation with the structural geology. It should be very helpful too as textbook for the physical fundamentals of the elastic mechanics, stress and strain tensors, etc. If you are looking for an all-in-one book of structural geology to use as support for your studies or basic research... keep searching.

Excellent book for the modeler when approaching structural geology, however the amount of classical structural geology in the book is strikingly sparse. If you are looking for a textbook that balances the two, you should probably look elsewhere.

One of the most important books for geologist!

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