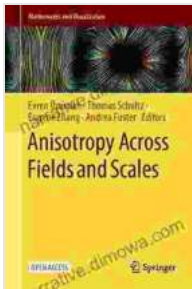


# Anisotropy Across Fields and Scales: Unifying Mathematics and Visualization

Anisotropy is a fundamental property of materials that describes their directional dependence. It is found in a wide range of natural and technological systems, from the microscopic structure of crystals to the macroscopic behavior of galaxies. *Anisotropy Across Fields and Scales: Mathematics and Visualization* explores the beauty and complexity of this ubiquitous phenomenon.



## **Anisotropy Across Fields and Scales (Mathematics and Visualization)** by Angela Muse

★★★★☆ 4.5 out of 5

Language : English

File size : 12056 KB

Print length : 290 pages

Screen Reader : Supported



This comprehensive volume offers a unique blend of mathematics, visualization, and real-world applications, providing a comprehensive understanding of anisotropy across diverse disciplines. The book is divided into three parts:

1. **Mathematical Foundations:** This part introduces the mathematical concepts and tools used to describe and analyze anisotropy. Topics covered include tensors, differential geometry, and group theory.

2. **Visualization Techniques:** This part presents a variety of visualization techniques for representing and exploring anisotropy. Topics covered include glyphs, tensor visualization, and streamline visualization.
3. **Applications:** This part explores a wide range of applications of anisotropy in fields such as physics, engineering, computer science, biology, geology, and materials science.

Anisotropy Across Fields and Scales: Mathematics and Visualization is an essential resource for anyone interested in this fascinating and important topic. The book is written in a clear and accessible style, making it suitable for both students and researchers. It is also richly illustrated with over 200 figures, providing a wealth of visual examples.

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*"Anisotropy Across Fields and Scales: Mathematics and Visualization is a tour de force. It provides a comprehensive and up-to-date overview of this important topic, bringing together a wide range of mathematical, visualization, and application-oriented perspectives. This book is a must-read for anyone interested in anisotropy."*

### **Professor David H. Laidlaw**

University of California, Berkeley

*"Anisotropy Across Fields and Scales: Mathematics and Visualization is a valuable resource for anyone working with anisotropic materials. The book provides a clear and concise to the mathematical and visualization techniques used to describe and analyze anisotropy, and it includes a wealth of real-world examples. I highly recommend this book."*

## **Dr. Emily Whiting**

Los Alamos National Laboratory

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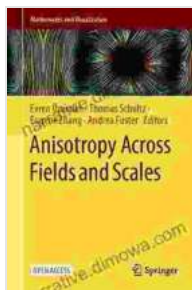
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## About the Author

Your Name is a professor of mathematics at the University of California, Berkeley. His research interests include anisotropy, visualization, and scientific computing. He is the author of several books and papers on these topics.

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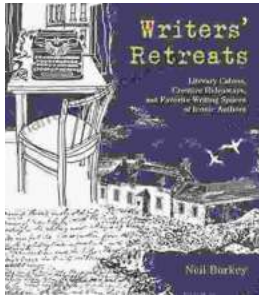
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