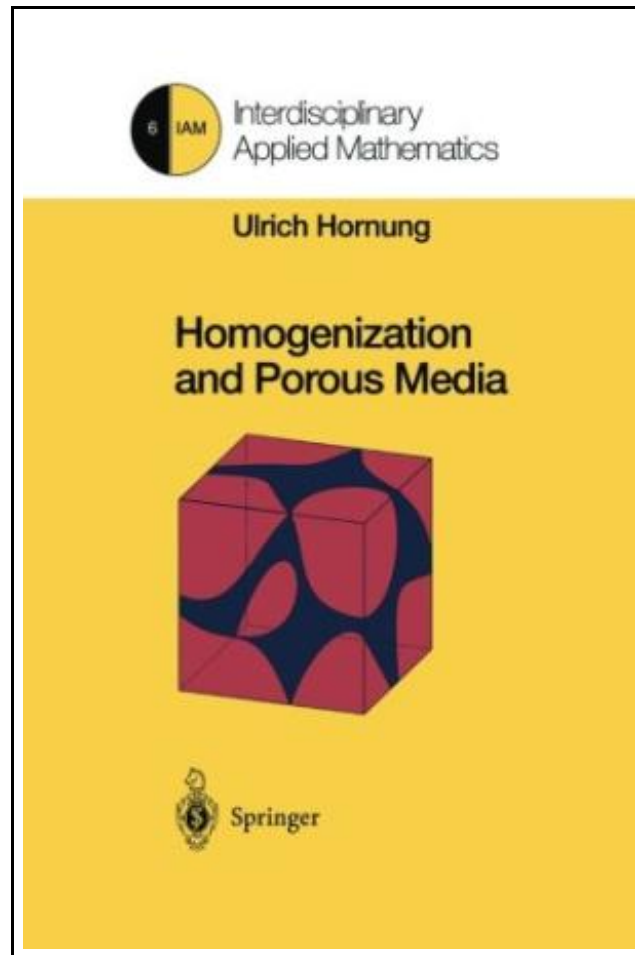


Homogenization and Porous Media



Filesize: 8.68 MB

Reviews

The book is straightforward in go through better to understand. it had been writtern quite flawlessly and valuable. You can expect to like the way the author publish this book.

(Reyes Murphy)

HOMOGENIZATION AND POROUS MEDIA



To download **Homogenization and Porous Media** PDF, remember to click the web link below and save the ebook or have access to additional information that are in conjunction with HOMOGENIZATION AND POROUS MEDIA ebook.

Condition: New. Publisher/Verlag: Springer, Berlin | This book offers a systematic, rigorous treatment of upscaling procedures related to physical modeling for porous media on micro-, meso- and macro-scales, including detailed studies of micro-structure systems and computational results for dual-porosity models. | For several decades developments in porous media have taken place in almost independent areas. In civil engineering, many papers were published dealing with the foundations of flow and transport through porous media. The method used in most cases is called averaging, and the notion of a representative elementary volume (REV) plays an important role. In chemical engineering, papers on conceptual models were written on the theory of mixtures. In theoretical physics and stochastic analysis, percolation theory has emerged, providing probabilistic models for systems where the connectedness properties of some component dominate the behavior. In mathematics, a theory has been developed called homogenization which deals with partial differential equations having rapidly oscillating coefficients. Early work in these and related areas was - among others - done by the following scientists: Maxwell [Max81] and Rayleigh [Ray92] studied the effective conductivity of media with small concentrations of randomly and periodically, respectively, arranged inclusions. Einstein [Ein06] investigated the effective viscosity of suspensions with hard spherical particles in compressible viscous fluids. Marchenko and Khrousllov [MK64] looked at the asymptotic nature of homogenization; they introduced a general approach of averaging based on asymptotic tools which can handle a variety of different physical problems. Unfortunately, up to now, little effort has been made to bridge the gap between these different fields of research. Consequently, many results were and are discovered independently, and scientists are almost unable to understand each other because the respective languages have been developing in different directions. | 1 Introduction.- 1.1 Basic Idea.- 1.2 First Examples.- 1.2.1 One-Dimensional Diffusion.- 1.2.2 Resistor Networks.- 1.2.3 Layered Media.- 1.3 Diffusion in Periodic Media.- 1.3.1 Formal Asymptotic Expansion.- 1.3.2 Application to Layered Media.- 1.3.3 Estimates of the Effective Conductivity Tensor.- 1.3.4 Media with...



[Read Homogenization and Porous Media Online](#)



[Download PDF Homogenization and Porous Media](#)

Related PDFs



[PDF] Read Write Inc. Phonics: Green Set 1 Storybook 4 the Spell

Access the web link beneath to download and read "Read Write Inc. Phonics: Green Set 1 Storybook 4 the Spell" PDF file.

[Download ePub »](#)



[PDF] Would It Kill You to Stop Doing That?

Access the web link beneath to download and read "Would It Kill You to Stop Doing That?" PDF file.

[Download ePub »](#)



[PDF] Story Elements, Grades 3-4

Access the web link beneath to download and read "Story Elements, Grades 3-4" PDF file.

[Download ePub »](#)



[PDF] The Writing Prompts Workbook, Grades 3-4: Story Starters for Journals, Assignments and More

Access the web link beneath to download and read "The Writing Prompts Workbook, Grades 3-4: Story Starters for Journals, Assignments and More" PDF file.

[Download ePub »](#)



[PDF] Violet Rose and the Surprise Party

Access the web link beneath to download and read "Violet Rose and the Surprise Party" PDF file.

[Download ePub »](#)



[PDF] The Forsyte Saga (The Man of Property; In Chancery; To Let)

Access the web link beneath to download and read "The Forsyte Saga (The Man of Property; In Chancery; To Let)" PDF file.

[Download ePub »](#)