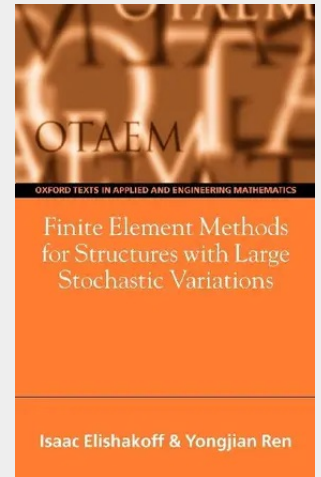


Finite Element Methods for Structures with Large Stochastic Variations

The finite element method (FEM) can be successfully applied to various field problems in solid mechanics, fluid mechanics and electrical engineering. FEM is a numerical method widely used in computer aided engineering, which allows for modelling and analysis of engineering and mathematical problems, e.g. safety testing. This reference text is the first to discuss finite element methods for structures with large stochastic variations. Stochastic variations are those that follow a random probability distribution or pattern and whose behaviour may be analysed statistically but not predicted precisely. Graduate students, lecturers, and researchers in mathematics, engineering, and scientific computation will find this a very useful reference. This book is the latest in the Oxford Texts in Applied and Engineering Mathematics series, which includes texts based on taught courses that explain the mathematical or computational techniques required for the resolution of fundamental applied problems, from the undergraduate through to the graduate level. Other books in the series include: Jordan & Smith: Nonlinear Ordinary Differential Equations: an introduction to dynamical systems; Sobey: Introduction to Interactive Boundary Layer Theory; Scott: Nonlinear Science: emergence and dynamics of coherent structures; Tayler: Mathematical Models in Applied Mechanics; Ram-Mohan: Finite Element and Boundary Element Applications in Quantum Mechanics.

The finite element method (FEM) can be successfully applied to various field problems in solid mechanics, fluid mechanics and electrical engineering. FEM is a numerical method widely used in computer aided engineering, which allows for modelling and analysis of engineering and mathematical problems, e.g. safety testing. This reference text is the first to discuss finite element methods for structures with large stochastic variations. Stochastic variations are those that follow a random probability distribution or pattern and whose behavior may be analyzed statistically but not predicted precisely. Graduate students, lecturers and researchers in mathematics, engineering and scientific computation will find this a very useful reference. This book is the latest in the Oxford Texts in Applied and Engineering Mathematics Series, which includes text based on taught courses that explain the mathematical or computational techniques required for the resolution of fundamental applied problems, from the undergraduate through to the graduate level.



205,60 €

205,60 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9780198526315

Medium: Buch

ISBN: 978-0-19-852631-5

Verlag: OUP Oxford

Erscheinungstermin: 01.09.2003

Sprache(n): Englisch

Auflage: Erscheinungsjahr 2003

Produktform: Gebunden

Gewicht: 575 g

Seiten: 272

Format (B x H): 161 x 240 mm

