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ISBN	9789815079067 9789815079074
Edizione	[1st ed.]
Descrizione fisica	1 online resource (178 pages)
Disciplina	515.35
Soggetti	Boundary value problems - Numerical solutions
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- Title -- Copyright -- End User License Agreement -- Contents -- Preface -- Nonlinear Stochastic Finite Element Method -- Reliability Calculation of Stochastic Finite Element -- Fuzzy Reliability Calculation Based on StochasticFinite Element -- Static Analysis of Interval Finite Element -- Interval Finite Element for Linear Vibration -- Nonlinear Interval Finite Element -- Nonlinear Vibration Analysis of Interval FiniteElement -- Random Field, Interval Field, Fuzzy Field andMixed Field -- Mixed Finite Element -- Subject Index -- Back Cover.
Sommario/riassunto	This book explains uncertainty analysis for finite elements and general nonlinear problems. It starts with the fundamentals of the topic and progresses to complex methods through 9 chapters. Each chapter focuses on a specific, relevant topic and provides information in a structured reading format for advanced learners. The author explains different models relevant to the topic where applicable, in an effort to cover the diverse aspects of mathematical analysis. Topics covered in the book include: - Nonlinear stochastic finite element methods - Reliability calculations - Static analysis of interval finite element - Linear and nonlinear vibration analysis - Stochastic, random, fuzzy and mixed fields - Mixed finite element analysis Uncertainty Analysis in Finite Elements Models is an ideal reference for advanced courses in mathematical analysis and engineering that require students to

understand the basics of uncertainty analysis and basic reliability calculations.