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前言

It is thirty-eight years since the The Finite Element Method in Structural and Continuum Mechanics was first published. This book, which was the first dealing with the finite element method, provided the basis from which many further developments occurred. The expanding research and field of application of finite elements led to the second edition in 1971, the third in 1977, the fourth as two volumes in 1989 and 1991 and the fifth as three volumes in 2000. The size of each of these editions expanded geometrically (from 272 pages in 1967 to the fifth edition of 1482 pages). This was necessary to do justice to a rapidly expanding field of professional application and research. Even so, much filtering of the contents was necessary to keep these editions within reasonable bounds. In the present edition we retain the three volume format of the fifth edition but have decided not to pursue having three contiguous volumes- rather we treat the whole work as an assembly of three separate works. Each one is capable of being used without the others and each one appeals perhaps to a different audience. Though naturally we recommend the use of the whole ensemble to people wishing to devote much of their time and study to the finite element method.

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内容概要

This book is dedicated to our wives Helen and Mary Lou and our families for their support and patience during the preparation of this book , and also to all of our students and colleagues who over the years have contributed to our knowledge of the finite element method.

In particular we would like to mention Professor Eugenio Onate and his group at CIMNE for their help, encouragement and support during the preparation process.

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作者简介

作者:(英国)监凯维奇(Zienkiewicz.O.C)

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