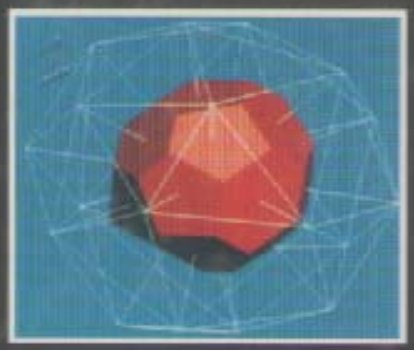
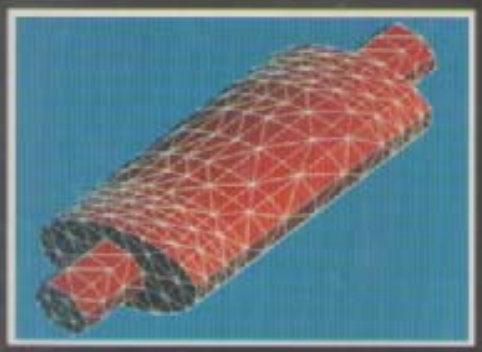
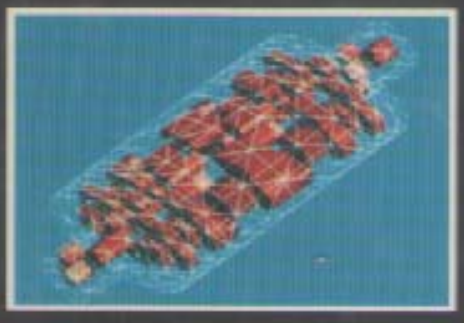
The Mathematics of Finite Elements and Applications

Highlights 1993







Edited by

J. R. Whiteman

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The Mathematics of Finite Elements and Applications
Highlights 1993

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UK

The increase in the range of applications of finite element methods continues unabated. Recent years have seen the expansion of the method into many areas of nonlinear fluid and solid mechanics, with an ever widening body of theory accompanying the applications.

In this book world leaders in the finite element field present some of the latest developments in the subject. Their contributions span the mathematical theory, engineering and scientific applications of finite element methods, as well as some aspects of boundary and discrete element methods. The book particularly highlights topics of state-of-the-finite-element-art which are currently the subject of intense research activity: error estimation, adaptivity and reliability.

All the papers result from presentations which were made at MAFELAP 1993, the Eighth Conference on the Mathematics of Finite Elements and Applications at Brunel University, London. As with all the previous conferences in the MAFELAP Series, in 1993 mathematicians, engineers and other practitioners of finite elements again came together to discuss the theory and application of finite element techniques in as broad a context as possible.

Cover illustration (clockwise from the top) Voronoi polyhedron; Voronoi tessellation; Delaunay/Voronoi constructions; Delaunay triangulation. (Courtesy of General Motors Research Laborarories, Warren, USA.)

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