FINITE ELEMENTS

This definitive introduction to finite element methods has been thoroughly updated for this third edition, which features important new material for both research and application of the finite element method.

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The numerical solution of elliptic partial differential equations is an important application of finite elements and the author discusses this subject comprehensively. These equations are treated as variational problems for which the Sobolev spaces are the right framework. Graduate students who do not necessarily have any particular background in differential equations but require an introduction to finite element methods will find this text invaluable. Specifically, the chapter on finite elements in solid mechanics provides a bridge between mathematics and engineering.

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Theory, Fast Solvers, and Applications in Elasticity Theory

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