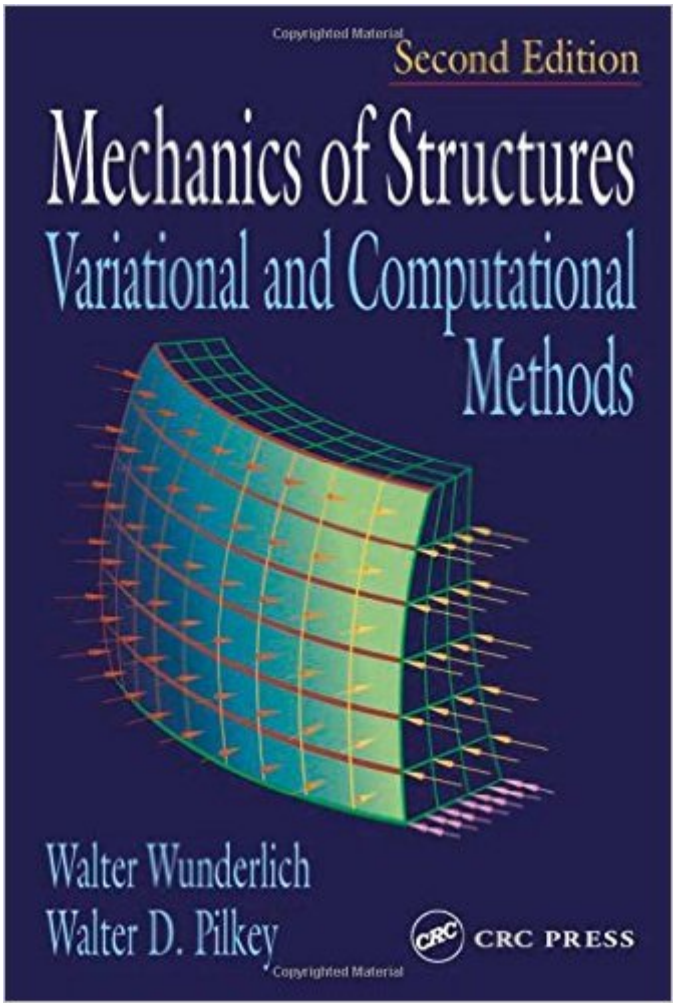
Mechanics Of Structures Variational And Computational Methods, 2nd Edition



Synopsis

Resoundingly popular in its first edition, the second edition of Mechanics of Structures: Variational and Computational Methods promises to be even more so, with broader coverage, expanded discussions, and a streamlined presentation.The authors begin by describing the behavior of deformable solids through the differential equations for the strength of materials and the theory of elasticity. They next introduce variational principles, including mixed or generalized principles, and derive integral forms of the governing equations. Discussions then move to computational methods, including the finite element method, and these are developed to solve the differential and integral equations.New in the second edition:A one-dimensional introduction to the finite element method, complete with illustrations of numerical mesh refinementExpansion of the use of Galerkin's method. Discussion of recent developments in the theory of bending and torsion of thin-walled beams.An appendix summarizing the fundamental equations in differential and variational formCompletely new treatment of stability, including detailed examplesDiscussion of the principal values of geometric properties and stressesAdditional exercisesAs a textbook or as a reference, Mechanics of Structures builds a unified, variational foundation for structure mechanics, which in turn forms the basis for the computational solid mechanics so essential to modern engineering.

Book Information

Hardcover: 874 pages

Publisher: CRC Press; 2nd edition (December 18, 2002)

Language: English

ISBN-10: 0849307007

ISBN-13: 978-0849307003

Product Dimensions: 7.3 x 2.1 x 10.2 inches

Shipping Weight: 3.8 pounds (View shipping rates and policies)

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Customer Reviews

This book have some flaws. Tear part it

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