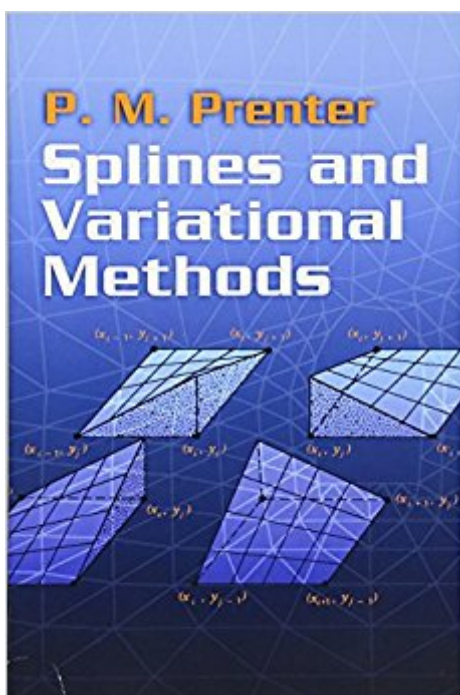The book was found

Splines And Variational Methods (Dover Books On Mathematics)

Synopsis

One of the clearest available introductions to variational methods, this text requires only a minimal background in calculus and linear algebra. Its self-contained treatment explains the application of theoretic notions to the kinds of physical problems that engineers regularly encounter. The textÃ¢â ¬â„¢s first half concerns approximation theoretic notions, exploring the theory and computation of one- and two-dimensional polynomial and other spline functions. Later chapters examine variational methods in the solution of operator equations, focusing on boundary value problems in one and two dimensions. Additional topics include least squares and other Galerkin methods. Many helpful definitions, examples, and exercises appear throughout the book. A classic reference in spline theory, this volume will benefit experts as well as students of engineering and mathematics.

Book Information

Series: Dover Books on Mathematics

Paperback: 334 pages

Publisher: Dover Publications; 2008 edition (December 18, 2008)

Language: English

ISBN-10: 0486469026

ISBN-13: 978-0486469027

Product Dimensions: 6.1 x 0.7 x 9.1 inches

Shipping Weight: 15.2 ounces (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars   1 customer review

Best Sellers Rank: #1,394,629 in Books (See Top 100 in Books)   #102 inÃ Â Books > Science & Math > Mathematics > Applied > Vector Analysis   #1142 inÃ Â Books > Science & Math > Mathematics > Mathematical Analysis

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Very good engineering oriented examination of Lagrange and Hermite polynomials leading up to splines including their uses in collocation and the Rayleigh-Ritz finite element method. Includes mesh-generation for two-dimensional boundary value problems and interpolations. Too bad this author only wrote this book. Lots of examples and pictures.

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