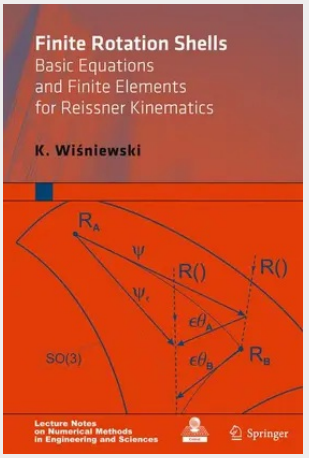
Wisniewski

Finite Rotation Shells

Basic Equations and Finite Elements for Reissner Kinematics



The objective of this book is to provide a comprehensive introduction to ?nite rotation shells and to non-linear shell ?nite elements. It is divided into 5 parts: I. Preliminaries (20 pages), II. Shell equations (104 pages), III. Finite rotations for shells (103 pages), IV. Four-node shell elements (189 pages), and V. Numerical examples (41 pages). Additional numerical examples are presented in Parts III and IV. The bibliography includes 270 entries. The book is intended for both teaching and self-study, and emphasizes fundamental aspects and techniques of the subject. Some familiarity with non-linear mechanics and the ?nite element method is assumed. Shell elements are a subject of active research which results in many publications every year and several conferences and sessions are held r- ularly, among them, two large international conferences: \Computation of Shell and Spatial Structures" and \Shell Structures. Theory and - plications" (SSTA). The literature is voluminous, not easy to follow and evaluate, and the subject is di–cult to comprehend. I hope that this will be facilitated by the book. I would like to express my gratitude to several persons who helped me in my professional life, in this way contributing to the book. I thank Prof. R.L. Taylor from the University of California at Berkeley, Prof. B. Schre er from the University of Padua, and Prof. J.T. Santos from the Instituto Superior Tecnico at Lisbon, for hosting and supporting me when I was a post-doctoral researcher.

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