1. Record Nr. UNINA9911006546903321

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Titolo	A theory of latticed plates and shells / / G.I. Pshenichnov
Pubbl/distr/stampa	Singapore ; ; New Jersey, : World Scientific, 1993
ISBN	9789812797100 9812797106 9781615838707 1615838708
Descrizione fisica	1 online resource (324 p.)
Collana	Series on advances in mathematics for applied sciences ; ; vol. 5
Disciplina	624.1/776/0151
Soggetti	Elastic plates and shells Elastic solids
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	PREFACE; CONTENTS; CONSISTENTLY USED SYMBOLS; Chapter 1 RETICULATED SHELL THEORY: EQUATIONS; 1.1 Anisotropic Shell Theory: Basic Equations; 1.1.1 Static equations; 1.1.2 Geometric equations; 1.1.3 Constitutive equations for anisotropic shells; 1.2 Constitutive Equations in the Reticulated Shell Theory; 1.2.1 Constitutive equations for the rods of reticulated shells; 1.2.2 Constitutive equations for a calculation model; 1.2.3 Assessment of the deformation components and forces in the rods using the forces and moments of the calculation model 1.2.4 Constitutive equations for an oblique-angled system of coordinates1.2.5 More complex version of the constitutive equations; 1.2.6 Study of the geometrical stability of the reticulated shell's calculation model. Deformation energy; 1.2.7 Boundary conditions; 1.3 More Precise Constitutive Equations in the Reticulated Shell Theory; 1.3.1 Allowance for transverse shear, cross-section warping and transverse deformation of rods; 1.3.2 Allowance for the rods' non-linear-elastic deformation; Chapter 2 DECOMPOSITION METHOD 2.1 Solution of Equations and Boundary Value Problems by the Decomposition Method2.1.1 Decomposition method; 2.1.2 Merits of the method; 2.2 Application of the Decomposition Method for Particular

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3.2.5 Plates made from composite material3.2.6 Plates made from nonlinear elastic material; 3.2.7 Bending of plate subjected to large deflections; 3.3 Shallow Shells; 3.3.1 Various differential equation systems for shallow shells subjected to medium bending; 3.3.2 Shallow shells with constant lattice parameters; 3.3.3 Shallow spherical shells; 3.4 Small Parameter Method in the Shallow Shell Theory; 3.4.1 Constitutive equations; 3.4.2 Differential equation system; 3.4.3 Small parameter method; 3.4.4 Numerical method for solving boundary iteration process problems
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Sommario/riassunto

The book presents the theory of latticed shells as continual systems and describes its applications. It analyses the problems of statics, stability and dynamics. Generally, a classical rod deformation theory is applied. However, in some instances, more precise theories which particularly consider geometrical and physical nonlinearity are employed. A new effective method for solving general boundary value problems and its application for numerical and analytical solutions of mathematical physics and reticulated shell theory problems is described. A new method of solving the shell theory's nonli