1.	Record Nr.	UNINA9910254218803321
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	Titolo	Recent Developments in Anisotropic Heterogeneous Shell Theory : Applications of Refined and Three-dimensional Theory—Volume IIA / / by Alexander Ya. Grigorenko, Wolfgang H. Müller, Yaroslav M. Grigorenko, Georgii G. Vlaikov
	Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2016
	ISBN	981-10-0645-8
	Edizione	[1st ed. 2016.]
	Descrizione fisica	1 online resource (50 p.)
	Collana	SpringerBriefs in Continuum Mechanics, , 2625-1329
	Disciplina	624.17762
	Soggetti	Mechanics Mechanics, Applied Mathematical models Solid Mechanics Mathematical Modeling and Industrial Mathematics
	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	Solutions of static problems based on the refined model -- Solutions of dynamic problems based on the refined model -- Some solutions stationary problems based on 3-D theory -- Conclusions.
	Sommario/riassunto	This brief book presents solutions of stress-strain problems for a wide class of anisotropic inhomogeneous shells obtained by the refined model. Studying these problems results in severe computational difficulties due to partial differential equations with variable coefficients resulting from the constitutive relations of the original model. To solve this problem the book uses spline-collocation and discrete-orthogonalization methods. It analyses the influence of geometrical and mechanical parameters, of various kinds of boundary conditions, and of the loading conditions on the distributions of stress and displacement fields in shallow, spherical, conical, and noncircular cylindrical shells. The dependence of the stress-strain pattern on shell thickness variations is studied. The authors solve the problem also for the case of the thickness varying in two directions. They study how a variation in shell thickness influences the stress-strain state and

consider noncircular cylindrical shells with elliptical and corrugated sections are considered. The results obtained during numerous calculations support the efficiency of the discrete-orthogonalization approach proposed in the monograph for solving static problems for anisotropic inhomogeneous shells when using the refined model.