

1. Record Nr.	UNINA9910349500203321
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Titolo	Theory of Spinors and Its Application in Physics and Mechanics / / by Vladimir A. Zhelnorovich
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-27836-0
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (402 pages)
Disciplina	515.63
Soggetti	Physics Particles (Nuclear physics) Quantum field theory Cosmology Mathematical physics Geometry, Algebraic Mathematical Methods in Physics Elementary Particles, Quantum Field Theory Mathematical Physics Algebraic Geometry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Spinors in Finite-Dimensional Euclidean Spaces -- Spinor Fields in a Riemannian Space -- Spinors in the Four-Dimensional Pseudo-Euclidean Space -- Spinors in Three-Dimensional Euclidean Spaces -- Tensor Forms of Differential Spinor Equations -- Exact Solutions of the Nonlinear Spinor Equations -- A. Relativistic Models of Spin Fluids in Electromagnetic Field -- B. Proper Bases and Invariant Internal Energy in the Theory of Electromagnetic Field -- C. The Bilinear Identities Connecting the Dirac Matrices -- Bibliography.
Sommario/riassunto	This book contains a systematic exposition of the theory of spinors in finite-dimensional Euclidean and Riemannian spaces. The applications of spinors in field theory and relativistic mechanics of continuous media are considered. The main mathematical part is connected with the study of invariant algebraic and geometric relations between

spinors and tensors. The theory of spinors and the methods of the tensor representation of spinors and spinor equations are thoroughly expounded in four-dimensional and three-dimensional spaces. Very useful and important relations are derived that express the derivatives of the spinor fields in terms of the derivatives of various tensor fields. The problems associated with an invariant description of spinors as objects that do not depend on the choice of a coordinate system are addressed in detail. As an application, the author considers an invariant tensor formulation of certain classes of differential spinor equations containing, in particular, the most important spinor equations of field theory and quantum mechanics. Exact solutions of the Einstein–Dirac equations, nonlinear Heisenberg’s spinor equations, and equations for relativistic spin fluids are given. The book presents a large body of factual material and is suited for use as a handbook. It is intended for specialists in theoretical physics, as well as for students and post-graduate students of physical and mathematical specialties.

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