Record Nr. UNINA9910164690503321 **Autore** Robert R **Titolo** Fluid Filtration: Gas [Place of publication not identified], : American Society for Testing & Pubbl/distr/stampa Materials, 1986 **ISBN** 0-8031-6046-1 Descrizione fisica 1 online resource (431 pages): illustrations ASTM STP;; Volume 975 Collana Disciplina 532 Soggetti Fluids - Congresses Fabric filters

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Record Nr. UNINA9910338249903321 Autore Martinec Zdenk Titolo Principles of Continuum Mechanics : A Basic Course for Physicists / / by **Zdenk Martinec** Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Birkhäuser,, 2019 **ISBN** 3-030-05390-3 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (XIX, 247 p. 19 illus., 1 illus. in color.) Collana Neas Center Series, , 2523-3343 Disciplina 531 Soggetti Differential equations Mechanics Mechanics, Applied Field theory (Physics) Differential equations, Partial **Ordinary Differential Equations** Solid Mechanics Classical and Continuum Physics Partial Differential Equations Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Geometry of Deformation -- Basic Kinematics -- Measures of Stress --Nota di contenuto Fundamental Conservation Principles -- Moving Reference Frames --Constitutive Equations -- Entropy Principles -- Classical Linear Elasticity -- Infinitesimal Deformation of a Body with a Finite Pre-Stress. This book addresses the basic concepts of continuum mechanics, that Sommario/riassunto is, the classical field theory of deformable bodies. The theory is systematically developed, from the kinematics to the balance equations, the material theory, and the entropy principles. In turn, the linear-elastic solids, the ideal liquid and the Newtonian liquid are presented in detail as concrete applications. The book concludes by covering the theory of small motions in a medium with a finite prestress. In general, the emphasis is on presenting the content in a

clear and straightforward way that requires only an elementary grasp of

calculus, linear algebra, and Newtonian mechanics. The book is intended for students of physics, mechanics, engineering and the geosciences, as well as applied mathematics, with a year or more of college calculus behind them.