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Autore	Mizerski Krzysztof A.
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Nota di contenuto	Chapter 1. The equations of hydrodynamics -- Chapter 2. The Oberbeck-Boussinesq convection -- Chapter 3. Anelastic convection -- Chapter 4. Inclusion of compositional effects.
Sommario/riassunto	This book continues the process of systematization of knowledge about convection. It is important to put the current knowledge on weakly and strongly stratified convection in order, and provide a comprehensive description of the marginal, weakly nonlinear and fully developed stages of convective flow in both cases. The book provides a short compendium of knowledge on the linear and weakly nonlinear limits of the Boussinesq convection, and a review of the theory on fully developed Boussinesq convection. The third chapter is devoted to a detailed derivation and a study of the three aforementioned stages of stratified (anelastic) convection, with a full solution in the marginal stage provided for the first time. Detailed and systematic explanations are given. The book is intended mainly as a textbook for courses on hydrodynamics and convective flows, for the use of lecturers and students; however, it also serves for the entire scientific community as a practical reference.