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Lingua di pubblicazione	Inglese
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Note generali	This book is an extended edition of the translation of the book in Russian "Dinamika vikhrevykh struktur v stratifitsirovannoy vraschayuscheysya zhidkosti" by M.A. Sokolovskiy and J. Verron. The book was published originally in Russian by Publishing House of Izhevsk Institute of Computer Science, Moscow in 2011. Includes bibliographical references and index.
Nota di bibliografia	
Nota di contenuto	The Introductory Chapter -- Dynamics of Discrete Vortices -- Dynamics of Finite-core Vortices -- The Concluding Chapter.
Sommario/riassunto	This book presents an extensive analysis of the dynamics of discrete and distributed baroclinic vortices in a multi-layer fluid that characterizes the main features of the large and mesoscales dynamics of the atmosphere and the ocean. It widely covers the case of hetonic situations as well as the case of intrathermocline vortices that are familiar in oceanographic and of recognized importance for heat and mass transfers. Extensive typology of such baroclinic eddies is made and analysed with the help of theoretical development and numerical computations. As a whole it gives an overview and synthesis of all the many situations that can be encountered based on the long history of the theory of vortex motion and on many new situations. It gives a renewed insight on the extraordinary richness of vortex dynamics and

open the way for new theoretical, observational and experimental advances. This volume is of interest to experts in physical oceanography, meteorology, hydrodynamics, dynamic systems, involved in theoretical, experimental and applied research and lecturers, post-graduate students, and students in these fields.

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