1. Record Nr. UNINA9910807365303321

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Titolo	1D Radiative Fluid and Liquid Crystal Equations / / Yuming Qin
Pubbl/distr/stampa	[Place of publication not identified] : , : Science Press, EDP Sciences, , [2022] ©2022
ISBN	2-7598-2904-9
Edizione	[First edition.]
Descrizione fisica	1 online resource (152 p.)
Collana	Current Natural Sciences Series
Disciplina	531.110151
Soggetti	Equations of motion Hodograph equations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Contents -- Foreword -- Chapter 1 Preliminary -- Chapter 2 Asymptotic Behavior of Solutions for the One-Dimensional Infrarelativistic Model of a Compressible Viscous Gas with Radiation -- Chapter 3 Global Existence and Regularity of a One-Dimensional Liquid Crystal System -- Chapter 4 Large-Time Behavior of Solutions to a One-Dimensional Liquid Crystal System -- Bibliography -- Index
Sommario/riassunto	This book presents recent results on nonlinear evolutionary fluid equations, in particular the global well-posedness and asymptotic behavior of solutions to 1D radiative fluid equations, as well as liquid crystal equations. Most of the material in this book was prepared by the author over the past few years.This book has two main features. Firstly, there are more known results on higher dimensional radiative fluid systems but only on the local existence and explosion of solutions; while the existing findings on the one-dimensional case present some shortcomings, this book introduces corrections and improvements of these shortcomings. Secondly, the current findings on the high-dimensional compressible liquid crystal fluid equations are few and include only globally existing solutions but not the asymptotic behavior of the solutions; the author developed not only the global existence and regularity of the solutions, but also the asymptotic behavior of the solutions for the one-dimensional case in the chapter 3 of this book. Therefore, this work provides the reader with complete elements

related to the one-dimensional compressible liquid crystal fluid system.