

1. Record Nr.	UNINA9910583326803321
Autore	Breit Dominic
Titolo	Existence theory for generalized newtonian fluids // Dominic Breit
Pubbl/distr/stampa	Amsterdam, [Netherlands] : , : Academic Press, , 2017 ©2017
ISBN	0-12-811045-7
Edizione	[First edition.]
Descrizione fisica	1 online resource (288 pages) : illustrations, tables
Collana	Mathematics in Science and Engineering
Disciplina	532.0501515353
Soggetti	Fluid dynamics Newtonian fluids
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	Existence Theory for Generalized Newtonian Fluids provides a rigorous mathematical treatment of the existence of weak solutions to generalized Navier-Stokes equations modeling Non-Newtonian fluid flows. The book presents classical results, developments over the last 50 years of research, and recent results with proofs. Provides the state-of-the-art of the mathematical theory of Generalized Newtonian fluids Combines elliptic, parabolic and stochastic problems within existence theory under one umbrella Focuses on the construction of the solenoidal Lipschitz truncation, thus enabling readers to apply it to mathematical research Approaches stochastic PDEs with a perspective uniquely suitable for analysis, providing an introduction to Galerkin method for SPDEs and tools for compactness