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Soggetti	Partial differential equations Mathematical physics Amorphous substances Complex fluids Fluid mechanics Mechanics Mechanics, Applied Partial Differential Equations Mathematical Physics Soft and Granular Matter, Complex Fluids and Microfluidics Engineering Fluid Dynamics Solid Mechanics
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Nota di contenuto	Preface.-John. M. Ball: Liquid Crystals and their defects -- Eduard Feireisl: Mathematical Thermodynamics of Viscous Fluids -- Felix Otto, Steffen Pottel, and Camilla Nobili: Rigorous Bounds on Scaling Laws in Fluid Dynamics.
Sommario/riassunto	The main goal of this book is to provide an overview of the state of the art in the mathematical modeling of complex fluids, with particular emphasis on its thermodynamical aspects. The central topics of the text, the modeling, analysis and numerical simulation of complex fluids, are of great interest and importance both for the understanding

of various aspects of fluid dynamics and for its applications to special real-world problems. New emerging trends in the subject are highlighted with the intent to inspire and motivate young researchers and PhD students.

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