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Descrizione fisica	1 online resource (XX, 184 p. 36 illus.)
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Soggetti	Fluid mechanics Fluids Aerospace engineering Astronautics Mechanics Engineering Fluid Dynamics Fluid- and Aerodynamics Aerospace Technology and Astronautics Classical Mechanics
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Drag Reducing Agents – A Historical Perspective -- Velocity Profiles and Friction Factors in Turbulent Pipe Flows -- Velocity Distributions and Boundary Layer Thicknesses in Turbulent Flows Curved Tubes -- Turbulent Natural Convection Heat Transfer in External Flows -- Turbulent Forced and Mixed Convection Heat Transfer in Internal Flows -- Natural, Forced and Mixed Convection Heat Transfer in External Flows through Porous Media -- Vertical Flat Plate -- Forced Convection Heat Transfer in Internal Flows through Porous Media.
Sommario/riassunto	This book explains theoretical derivations and presents expressions for fluid and convective turbulent flow of mildly elastic fluids in various internal and external flow situations involving different types of geometries, such as the smooth/rough circular pipes, annular ducts, curved tubes, vertical flat plates, and channels. Understanding the methodology of the analyses facilitates appreciation for the rationale

used for deriving expressions of parameters relevant to the turbulent flow of mildly elastic fluids. This knowledge serves as a driving force for developing new ideas, investigating new situations, and extending theoretical analyses to other unexplored areas of the rheology of mildly elastic drag reducing fluids. The book suits a range of functions--it can be used to teach elective upper-level undergraduate or graduate courses for chemical engineers, material scientists, mechanical engineers, and polymer scientists; guide researchers unexposed to this alluring and interesting area of drag reduction; and serve as a reference to all who want to explore and expand the areas dealt with in this book.

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