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Titolo	Dynamics of Non-Spherical Particles in Turbulence [[electronic resource] /] / by Luis Blay Esteban
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Nota di contenuto	Introduction -- Planar Particles in Quiescent Fluid -- Facility for Turbulence Generation -- Disks Falling Under Background Turbulence -- Conclusions.
Sommario/riassunto	This book studies the dynamics of 2D objects moving through turbulent fluids. It examines the decay of turbulence over extended time scales, and compares the dynamics of non-spherical particles moving through still and turbulent fluids. The book begins with an introduction to the project, its aims, and its relevance for industrial applications. It then discusses the movement of planar particles in quiescent fluid, and presents the numerous methodologies used to measure it. The book also presents a detailed analysis of the falling style of irregular particles, which makes it possible to estimate particle trajectory and wake morphology based on frontal geometry. In turn, the book provides the results of an analysis of physically constrained decaying turbulence in a laboratory setting. These results suggest that

large-scale cut-off in numerical simulations can result in severe bias in the computed turbulent kinetic energy for long waiting times. Combining the main text with a wealth of figures and sketches throughout, the book offers an accessible guide for all engineering students with a basic grasp of fluid mechanics, while the key findings will also be of interest to senior researchers. .
