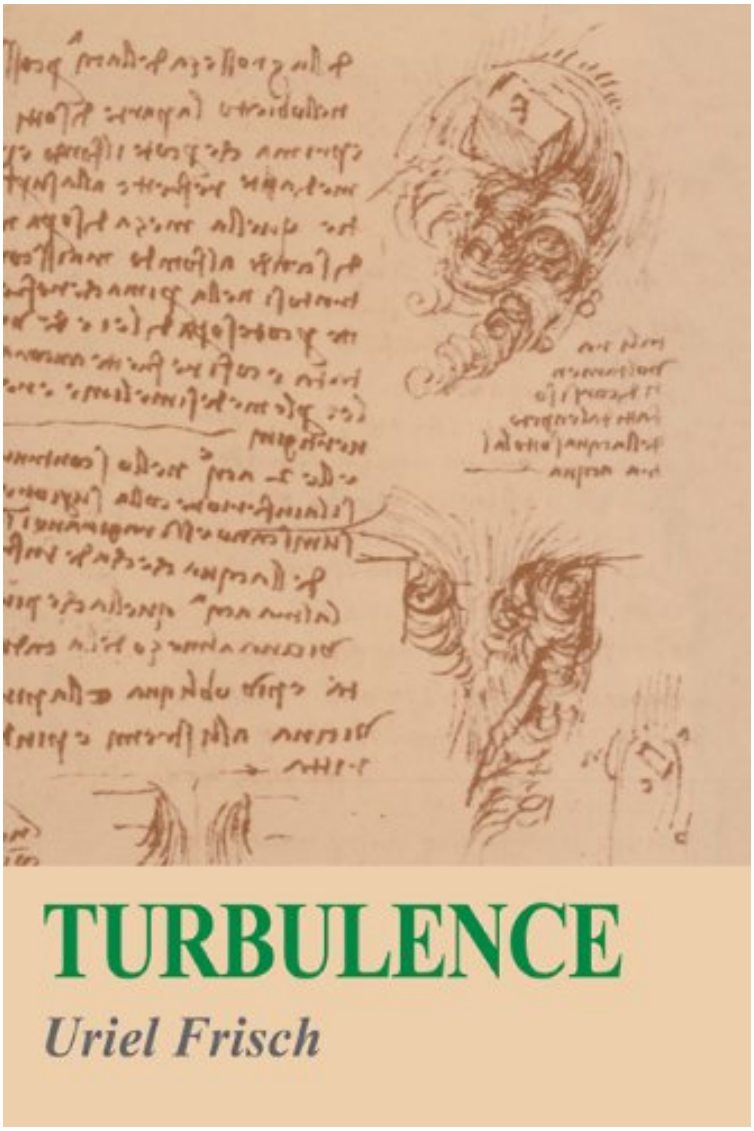
Turbulence: The Legacy of A. N. Kolmogorov



Par Uriel Frisch
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(Mobile pdf) Turbulence: The Legacy of A. N. Kolmogorov

Par Uriel Frisch : Turbulence: The Legacy of A. N. Kolmogorov before purchasing it in order to gage whether or not it would be worth my time, and all praised Turbulence: The Legacy of A. N. Kolmogorov:

Description :

Prsentation de l'diteurThis textbook presents a modern account of turbulence, one of the greatest challenges in physics. The state-of-the-art is put into historical perspective five centuries after the first studies of Leonardo and half a century after the first attempt by A. N. Kolmogorov to predict the properties of flow at very high Reynolds numbers. Such 'fully developed turbulence' is ubiquitous in both cosmical and natural environments, in engineering applications and in everyday life. The intended readership for the book ranges from first-year graduate students in mathematics, physics, astrophysics, geosciences and engineering, to professional scientists and engineers. Elementary presentations of dynamical systems ideas, of probabilistic methods (including the theory of large deviations) and of fractal geometry make this a self-contained textbook.Revue de presse'It is certainly an excellent book for those wanting to take a fresh look at some

aspects of the subject. Teachers of turbulence will find it useful, for at least part of the material of their course. The book is undoubtedly worth reading by everybody concerned with some aspect of turbulence research.' A. Tsinober, Journal of Fluid Mechanics'The title reveals a great advantage of this book: It is not a book on fluid dynamics with a chapter or so on turbulence; it is instead a modern, physics-oriented discussion of a difficult subject about which surprisingly little can be said to be known with confidence. This is a work of great scholarship. This book belongs in the library of any college or university where physics is taught. It can productively be used as a reference in advanced undergraduate courses or as a text for a one-semester course on turbulence itself.' Russell Donnelly, Physics Today' recommended to everyone who wants to know more of the basis and present-day understanding of turbulence.' Nonlinear Science TodayPrsentation de l'diteurThis textbook presents a modern account of turbulence, one of the greatest challenges in physics. The state-of-the-art is put into historical perspective five centuries after the first studies of Leonardo and half a century after the first attempt by A. N. Kolmogorov to predict the properties of flow at very high Reynolds numbers. Such 'fully developed turbulence' is ubiquitous in both cosmical and natural environments, in engineering applications and in everyday life. The intended readership for the book ranges from first-year graduate students in mathematics, physics, astrophysics, geosciences and engineering, to professional scientists and engineers. Elementary presentations of dynamical systems ideas, of probabilistic methods (including the theory of large deviations) and of fractal geometry make this a self-contained textbook.