

<<An Introduction to O>>

图书基本信息

书名：<<An Introduction to Ocean Turbulence海洋湍流引论>>

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内容概要

This textbook provides an introduction to turbulent motion occurring naturally in the ocean on scales ranging from millimetres to hundreds of kilometres. It describes turbulence in the mixed boundary layers at the sea surface and seabed, turbulent motion in the density-stratified water between, and the energy sources that support and sustain ocean mixing. Little prior knowledge of physical oceanography is assumed. The text is supported by numerous figures, extensive further reading lists, and more than 50 exercises that are graded in difficulty. Detailed solutions to the exercises are available to instructors online at www.cambridge.org/9780521859486. This textbook is intended for undergraduate courses in physical oceanography, and all students interested in multidisciplinary aspects of how the ocean works, from the shoreline to the deep abyssal plains. It also forms a useful lead-in to the author's more advanced graduate textbook, *The Turbulent Ocean* (Cambridge University Press, 2005). 作者

简介： Steve Thorpe was a Senior Scholar at Trinity College, Cambridge, where he studied mathematics and fluid mechanics, his PhD being awarded in 1966. He then spent 20 years at the UK Institute of Oceanographic Science, before being appointed Professor of Oceanography at Southampton University in 1986. He has made laboratory experiments on internal waves and turbulent mixing, and has measured and developed instrumental and analytical methods for studying waves and mixing in lakes, as well as making seagoing studies of turbulence in the boundary layers of the deep ocean and shelf seas. Professor Thorpe was awarded the Walter Munk Award by the US Office of Naval Research and the Oceanography Society for his work on underwater acoustics, the Fridtjof Nansen medal of the European Geophysical Society for his fundamental experimental and theoretical contributions to the study of mixing and internal waves, and the Society's Golden Badge for introducing a scheme to assist young scientists. He became a Fellow of the Royal Society in 1991 and is now an Emeritus Professor at the University of Southampton and an Honorary Professor at the School of Ocean Sciences, Bangor.

<<An Introduction to O>>

书籍目录

Preface Notes on the text Acknowledgements Abbreviations Standard parameters and symbols Units and their symbols SI prefixes Approximate values of commonly used measures¹ Turbulence, heat and waves

1.1 Introduction 1.2 Reynolds' experiment 1.3 Joule's experiment 1.4 The surf zone: waves and turbulence 1.5 The nature of turbulent flow 1.5.1 Stirring + diffusion = mixing 1.5.2 Entrainment and detrainment 1.6 Shear, convergence and strain 1.7 Ocean stratification and buoyancy 1.7.1 Density 1.7.2 Buoyancy, and the buoyancy frequency, N 1.7.3 The oceanic density profile 1.8 Consequences of stratification 1.8.1 Internal waves and turbulent motion 1.8.2 Isopycnal and diapycnal mixing Suggested further reading Further study Problems for Chapter 12 Measurement of ocean turbulence 2.1 Characteristics of turbulence 2.1.1 Structure 2.1.2 Stress and flux 2.1.3 Dissipation 2.2 Transport by eddies 2.2.1 Reynolds stress 2.2.2 Heat and buoyancy flux 2.3 Energetics 2.3.1 Turbulent dissipation, e , and isotropy 2.3.2 The range and observed variation of 2.3.3 The rate of loss of temperature variance, X_T 2.3.4 The Kolmogorov length scale, l_K 2.3.5 The turbulence cascade and the structure of turbulence 2.3.6 The Taylor hypothesis and the spectrum of turbulent energy 2.4 The terms in the energy balance equation 2.4.1 The rate of production of turbulent kinetic energy by the mean flow 2.4.2 The turbulent potential energy 2.4.3 The rate of dissipation 2.5 Measurement techniques and instruments 2.5.1 The first measurements of turbulence: spectra 2.5.2 The air-foil probe: the measurement of 2.5.3 First measurements of Reynolds stress, and the related dissipation per unit area 2.5.4 Estimates of Reynolds stress and e using an ADCP Suggested further reading Further study Problems for Chapter 23 Turbulence in oceanic boundary layers 3.1 Introduction: processes, and types of boundary layers 3.2 Convection in the absence of shear 3.2.1 Convection below a cooled surface or over a heated seabed 3.2.2 Buoyant plumes and entrainment 3.3 Stress and no convection; the law of the wall 3.4 Stress and buoyancy flux 3.4.1 The Monin-Obukov length scale 3.4.2 Diurnal and seasonal heat cycling of the mixed layer 3.4.3 Other mixing processes in the upper ocean 3.4.4 The benthic (or bottom) boundary layer 3.4.5 Tidal mixing and straining in shallow seas Suggested further reading Further study Problems for Chapter 34 Turbulence in the ocean pycnocline⁵ Turbulent dispersion⁶ The energetics of ocean mixing

<<An Introduction to O>>

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