

<<Stellar Rotation恒星的 >>

图书基本信息

书名：<<Stellar Rotation恒星的旋转>>

13位ISBN编号：9780521037693

10位ISBN编号：0521037697

出版时间：2007-7

作者：Tassoul, Jean-Louis

页数：256

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

内容概要

Like the Earth and planets, stars rotate. This authoritative volume provides a lucid introduction to stellar rotation and the definitive reference to the subject. It combines theory and observation in a comprehensive survey of how the rotation of stars affects the structure and evolution of the Sun, single stars, and close binaries. This timely book will be of primary interest to graduate students and researchers studying solar and stellar rotation and close binary systems. It will also appeal to those with a more general interest in solar and stellar physics, star formation, binary stars, and the hydrodynamics of rotating fluids -- including geophysicists, planetary scientists, and plasma physicists.

书籍目录

Preface
 1 Observational basis 1.1 Historical development 1.2 The Sun 1.3 Single stars 1.4 Close binaries
 1.5 Bibliographical notes
 2 Rotating fluids 2.1 Introduction 2.2 The equations of fluid motion 2.3 The
 vorticity equation 2.4 Reynolds stresses and eddy viscosities 2.5 Applications to the Earth's atmosphere 2.6
 The wind-driven oceanic circulation 2.7 Barotropic and baroclinic instabilities 2.8 Self-gravitating fluid masses
 2.9 Bibliographical notes
 3 Rotating stars 3.1 Introduction 3.2 Basic concepts 3.3 Some tentative solutions
 3.4 The dynamical instabilities 3.5 The thermal instabilities 3.6 The eddy-mean flow interaction 3.7
 Bibliographical notes
 4 Meridional circulation 4.1 Introduction 4.2 A frictionless solution 4.3 A consistent
 first-order solution 4.4 A consistent second-order solution 4.5 Meridional circulation in a cooling white dwarf
 4.6 Meridional circulation in a close-binary component 4.7 Meridional circulation in a magnetic star 4.8
 Discussion 4.9 Bibliographical notes
 5 Solar rotation 5.1 Introduction 5.2 Differential rotation in the
 convection zone 5.3 Meridional circulation in the radiative core 5.4 Spin-down of the solar interior 5.5
 Discussion 5.6 Bibliographical notes
 6 The early-type stars 6.1 Introduction 6.2 Main-sequence models 6.3
 Axial rotation along the upper main sequence 6.4 Circulation, rotation, and diffusion 6.5 Rotation of evolved
 stars 6.6 Bibliographical notes
 7 The late-type stars 7.1 Introduction 7.2 Schatzman's braking mechanism
 7.3 Rotation of T Tauri and cluster stars 7.4 Rotational evolution of low-mass stars 7.5 Bibliographical notes
 8 Tidal interaction 8.1 Introduction 8.2 The tidal-torque mechanism 8.3 The resonance mechanism 8.4 The
 hydrodynamical mechanism 8.5 Contact binaries: The astrophysical balance 8.6 Discussion 8.7
 Bibliographical notes
 Epilogue
 Subject index
 Author index

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>