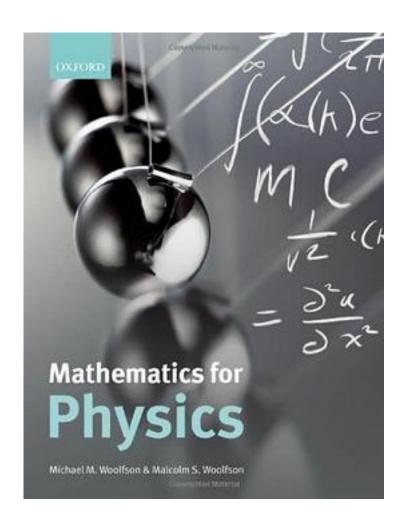
Mathematics for Physics



<u>Mathematics for Physics_下载链接1</u>

著者:Michael Stone

出版者:Cambridge University Press

出版时间:2009-7-9

装帧:Hardcover

isbn:9780521854030

An engagingly-written account of mathematical tools and ideas, this book provides a graduate-level introduction to the mathematics used in research in physics. The first half of the book focuses on the traditional mathematical methods of physics -

differential and integral equations, Fourier series and the calculus of variations. The second half contains an introduction to more advanced subjects, including differential geometry, topology and complex variables. The authors' exposition avoids excess rigor whilst explaining subtle but important points often glossed over in more elementary texts. The topics are illustrated at every stage by carefully chosen examples, exercises and problems drawn from realistic physics settings. These make it useful both as a textbook in advanced courses and for self-study. Password-protected solutions to the exercises are available to instructors at www.cambridge.org/9780521854030.

作者介绍:

MICHAEL STONE is a Professor in the Department of Physics at the University of Illinois at Urbana-Champaign. He has worked on quantum field theory, superconductivity, the quantum Hall effect and quantum computing.

PAUL GOLDBART is a Professor in the Department of Physics at the University of Illinois at Urbana-Champaign, where he directs the Institute for Condensed Matter Theory. His research ranges widely over the field of condensed matter physics, including soft matter, disordered systems, nanoscience and superconductivity.

目录: Preface

Acknowledgements

1 Calculus of variations

2 Function spaces

3 Linear ordinary differential equations

4 Linear differential operators

5 Green functions

6 Partial differential equations

7 The mathematics of real waves

8 Special functions

9 Integral equations

10 Vectors and tensors

11 Differential calculus on manifolds

12 Integration on manifolds

13 An introduction to differential topology

14 Groups and group representations

15 Lie groups

16 The geometry of fibre bundles

17 Complex analysis

18 Applications of complex variables

19 Special functions and complex variables

A Linear algebra review

B Fourier series and integrals

References

Index

・・・・・・(<u>收起</u>)

Mathematics for Physics_下载链接1_

数学物理
数学
这个才是学习数理方法的最佳用书
物理
数学-数学物理
评论
nice reference and textbook. some conceptual questions can be really "math"
书 评
Mathematics for Physics_下载链接1_

标签