

Physics and
Astronomy

Welcome

PASSIONATE ABOUT HIGHER EDUCATION

We are the higher education division of Macmillan Education. We develop books and learning resources for university-level students, from undergraduate to graduate, with a focus on the Social Sciences, Humanities, Business, Study Skills and the Sciences. Our academic textbooks are some of the most successful in print and our sophisticated e-learning resources integrate seamlessly with course delivery.

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Springer is well-known for its Mathematical, Condensed Matter, Classical as well as Applied Physics portfolio, and also publishes the latest research in interdisciplinary areas such as Complexity and Biophysics. Springer offers undergraduate textbooks, proceedings, reference works, popular science and more.

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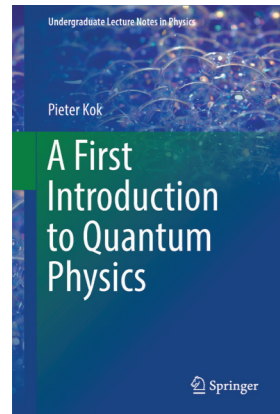
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Gail Grabner, University of Texas at Austin



New in Physics and Astronomy this academic year



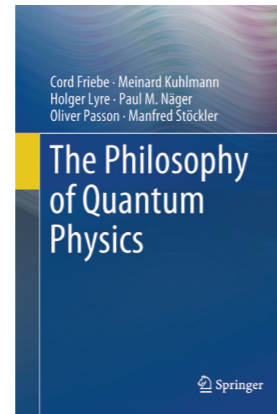
A First Introduction to Quantum Physics

Author: Pieter Kok

Publication date: 2018

ISBN: 9783319922065

This textbook is an accessible introduction to quantum physics, with modern examples such as gravitational wave detection and helpful end-of-chapter exercises. The author develops the quantum theory from first principles based on very simple experiments.



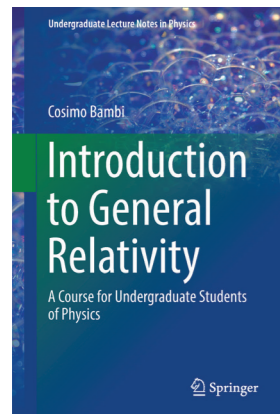
The Philosophy of Quantum Physics

Authors: C Friebe, M Kuhlmann, H Lyre, P.M Näger, O Passon and M Stöckler

Publication date: 2018

ISBN: 9783319783543

The first textbook devoted to the philosophy of quantum physics. The authors provide a clear and comprehensive overview of the interpretations of quantum theory and the associated philosophical questions.



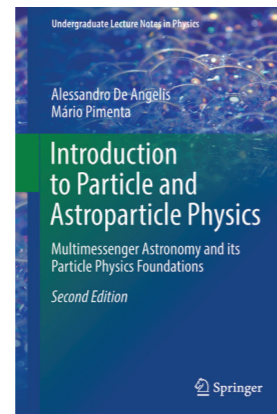
Introduction to General Relativity

Author: Cosimo Bambi

Publication date: 2018

ISBN: 9789811310898

This textbook covers recent advances in gravitational wave astronomy and provides a general overview of current lines of research in gravity. It also includes numerous examples and problems in each chapter.



Introduction to Particle and Astroparticle Physics

Authors: Alessandro De Angelis and Mário Pimenta

Publication date: 2018

ISBN: 9783319781808

2nd edition

Written by experimentalists actively working in the field of astroparticle physics and with extensive experience in particle physics, this textbook provides a balanced introduction to both (astro) particle physics and multimessenger astrophysics.

Coming soon this academic year



Discovering the Universe

Author: Neil F Comins

Publication date: 2019

ISBN: 9781319248604

11th edition

Combining a student-centred approach with the reliability of a familiar and proven text, this textbook invites students to follow their curiosity and ask questions about astronomy. This book is ideal for lecturers teaching a one-semester introductory course covering topics including the solar system, stars, and galaxies.



Universe

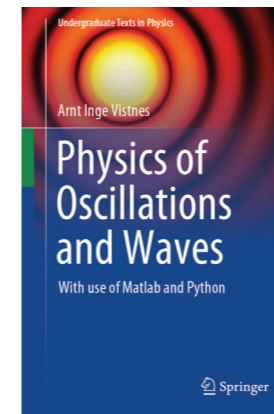
Authors: Roger Freedman, Robert Geller and William Kaufmann

Publication date: 2019

ISBN: 9781319248642

11th edition

This textbook strikes the right balance between scientific rigor and student comprehension and excitement. At 27 chapters, Universe engages with astronomical ideas and theories, while also inviting students in through stunning visuals and relatable narratives.



Physics of Oscillations and Waves: With use of Matlab and Python

Author: Arnt Inge Vistnes

Publication date: 2018

ISBN: 9783319723136

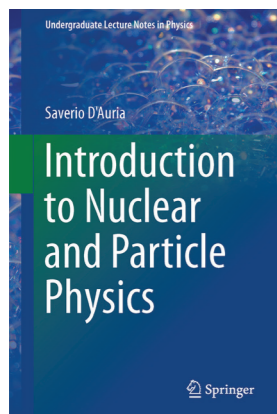
This textbook uses both mathematics and numerical methods to give physics students insights not offered by traditional physics teaching. Program codes in Matlab and Python, together with interesting files for use in the problems, are provided as free supplementary material.



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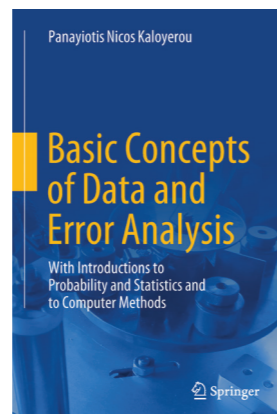
Introduction to Nuclear and Particle Physics

Author: Saverio D'Auria

Publication date: 2018

ISBN: 9783319938547

This textbook fills the gap between the very basic and the highly advanced volumes that are widely available on the subject. It offers a concise and comprehensive coverage of topics such as general relativity, fission and fusion.



Basic Concepts of Data and Error Analysis

Author: Panayiotis Nicos Kaloyerou

Publication date: 2018

ISBN: 9783319958750

This introductory textbook explains the concepts and methods of data and error analysis needed for laboratory experiment write-ups, especially physics and engineering experiments. Chapter five is a stand-alone introduction to probability and statistics aimed at providing a theoretical background to the data and error analysis chapters one to four.

COMING
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College Physics for the AP[®] Course

Authors: Roger Freedman, Todd Ruskell, Philip Kesten and David Tauck

Publication date: 2018

ISBN: 9781319248628

2nd edition

This book is the first textbook to integrate AP[®] skill-building and exam prep into a comprehensive college-level textbook, providing students and teachers with the resources they need to be successful in AP[®] Physics 1. Throughout the textbook you'll find AP Exam Tips, AP[®] practice problems, and complete AP[®] Practice Exams, with each section of the textbook offering a unique skill-building approach.

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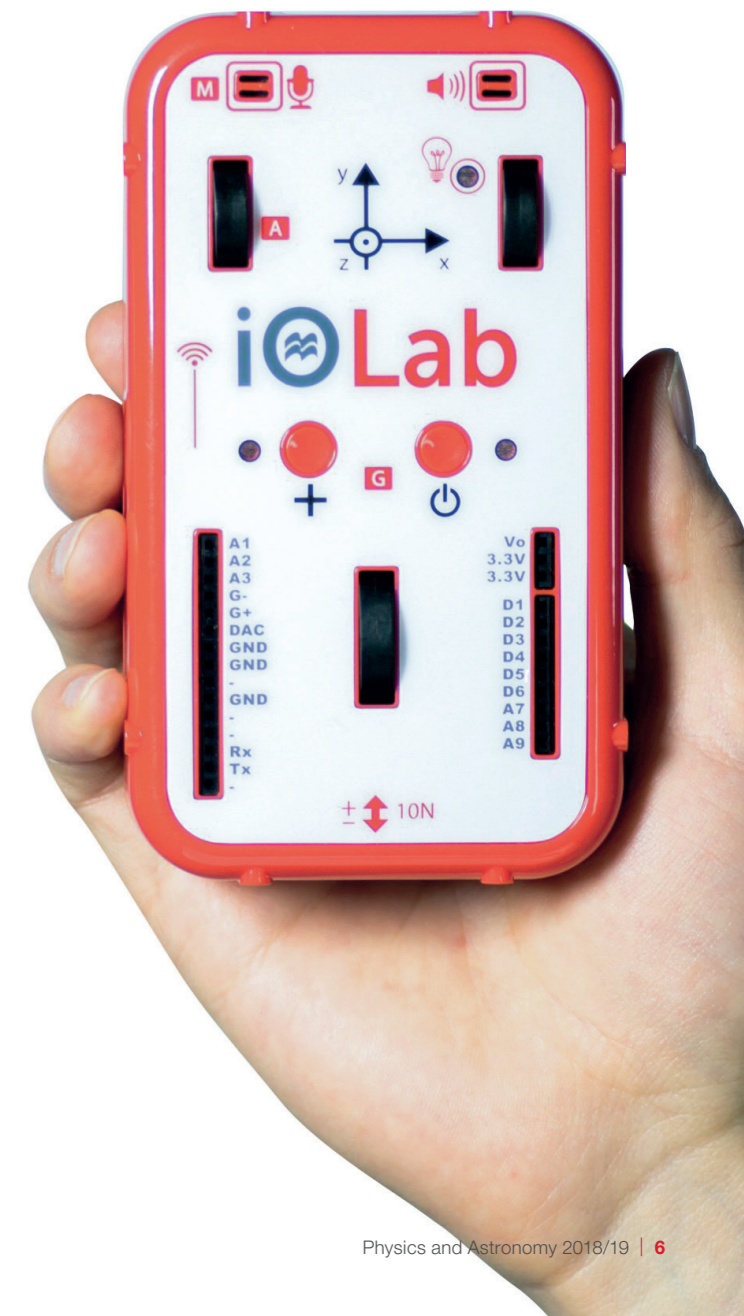
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