Foundations of Astrophysics

Key Benefit: Foundations of Astrophysics provides a contemporary and complete introduction to astrophysics for astronomy and physics majors. This book is briefer and more accessible than other books in the market, and is the most up-to-date book available in this fast-changing field. With a logical presentation and conceptual and quantitative end-of-chapter problems, the material is easier-to-grasp for introductory astrophysics readers.

Key Topics:

Early Astronomy, Emergence of Modern Astronomy, Orbital Mechanics, The Earth-Moon System, Interaction of Radiation and Matter, Astronomical Detection of Light, The Sun, Overview of the Solar System, Earth and Moon, The Planets, Small Bodies in the Solar System, The Solar System in Perspective, Properties of Stars, Stellar Atmospheres, Stellar Interiors, The Interstellar Medium,

Formation and Evolution of Stars, Stellar Remnants, Our Galaxy, Galaxies, Active Galaxies, Clusters and Superclusters, Cosmology, History of the Universe

Market: Intended for those interested in learning the basics of astrophysics

Both Barbara Ryden and Brad Peterson are respected teachers and researchers at Ohio State University. Peterson serves as Department Chair. Ryden wrote the Chambliss Astronomical Writing Award winner, Introduction to Cosmology, a text for majors published by Addison-Wesley. Peterson wrote a text on Active Galactic Nuclei published by Cambridge University press.

Other Books
Introduction to Particle and Astroparticle Physics, This book introduces particle physics, astrophysics and cosmology. Starting from an experimental perspective, it provides a unified view of these fields that reflects the very rapid advances being made. This new edition has a number of improvements and has been updated to describe the recent discovery of gravitational waves and astrophysical neutrinos, which started the new era of multimessenger astrophysics; it also includes new results on the Higgs particle. Astroparticle and particle physics share a common problem: we still don't have a description of the main ingredients of the Universe from the point of view of its energy budget. Addressing these fascinating issues, and offering a balanced introduction to particle and astroparticle physics that requires only a basic understanding of quantum and classical physics, this book is a valuable resource, particularly for advanced undergraduate students and for those embarking on graduate courses. It includes exercises that offer readers practical insights. It can be used equally well as a self-study book, a reference and a textbook.
□ □ □ □ □ . This book introduces particle physics, astrophysics and cosmology."