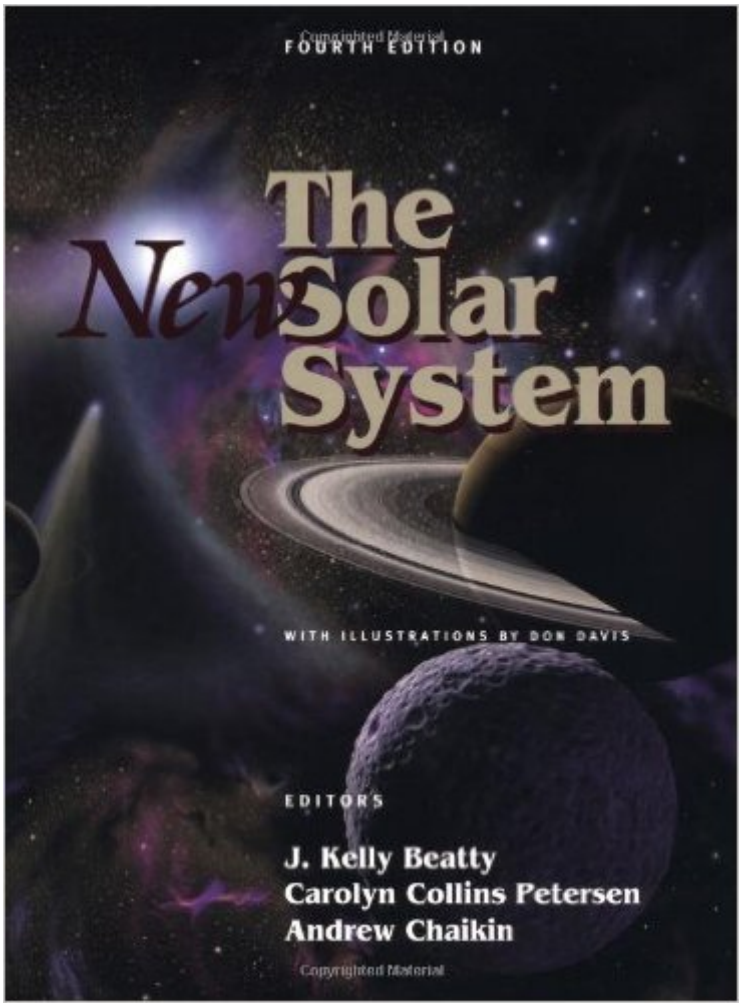
The New Solar System



Synopsis

As the definitive guide for the armchair astronomer, The New Solar System has established itself as the leading book on planetary science and solar system studies. Incorporating the latest knowledge of the solar system, a distinguished team of researchers, many of them Principal Investigators on NASA missions, explain the solar system with expert ease. The completely-revised text includes the most recent findings on asteroids, comets, the Sun, and our neighboring planets. The book examines the latest research and thinking about the solar system; looks at how the Sun and planets formed; and discusses our search for other planetary systems and the search for life in the solar system. In full-color and heavily-illustrated, the book contains more than 500 photographs, portrayals, and diagrams. An extensive set of tables with the latest characteristics of the planets, their moon and ring systems, comets, asteroids, meteorites, and interplanetary space missions complete the text. New to this edition are descriptions of collisions in the solar system, full scientific results from Galileo’s mission to Jupiter and its moons, and the Mars Pathfinder mission. For the curious observer as well as the student of planetary science, this book will be an important library acquisition. J. Kelly Beatty is the senior editor of Sky & Telescope, where for more than twenty years he has reported the latest in planetary science. A renowned science writer, he was among the first journalists to gain access to the Soviet space program. Asteroid 2925 Beatty was named on the occasion of his marriage in 1983. Carolyn Collins Petersen is an award-winning science writer and co-author of Hubble Vision (Cambridge 1995). She has also written planetarium programs seen at hundreds of facilities around the world. Andrew L. Chaikin is a Boston-based science writer. He served as a research geologist at the Smithsonian Institution’s Center for Earth and Planetary Studies. He is a contributing editor to Popular Science and writes frequently for other publications.

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Customer Reviews

The explosion of information in the field of planetary science in recent years has made it very difficult for the lay person to keep up with the latest knowledge and theories about the part of the universe in which we live. From the time the space program took off in the late 60's until today, NASA has sent an ever increasing number of missions to study our star and the planets of our Solar System.The first edition of The Solar System, published in 1981, was a way for those interested in planetary science to catch up with a burgeoning amount of research. Since the Third Edition of The New Solar System was published in 1990, there have been so many developments in planetary science, that the new Fourth Edition is nearly twice as large as its predecessor.This book is neither a text book nor a coffee table took. It lies somewhere in between. Its 28 chapters cover every aspect of Solar System research, from the Sun to Pluto, and all the planets, satellites, comets, atmospheres, and asteroids in between. The final chapter gives a census of the rapidly growing number of known worlds around other stars. Up-to-date tables of planetary, satellite, and small-body characteristics, a glossary of terms, suggested readings and references, and an index complete the book.This is not a book by one person or a group of editors. Instead, it is a collection of chapters drawing together the talents of a multitude of planetary experts into one place. The list of luminaries contributing to this edition include David Morrison on Exploring the Solar System, Paul Weissman on Cometary Reservoirs, Eugene and Carolyn Shoemaker on The Role of Collisions, and William K. Hartman on Small Worlds: Patterns and Relationships.

Three books on our solar system have appeared in the past year or so. Each has its own "flavor". I will review them in turn, but browsers should be aware of the other books, so they are listed here: See "Solar System Dynamics," C. D. Murray and S. F. Dermott, and "The Planetary Scientist's Companion," by Katharina Lodders and Bruce Fegley, Jr.The present volume, a tremendously handsome production, is replete with gorgeous and stimulating closeup photographs of planets and their satellites. They give a glimpse of what the earth could have been like --- but thank goodness, isn't!Many scientific theories, physical descriptions, and graphs are given describing geological and atmospheric conditions on the various solar bodies. However, they are not accompanied by a single equation. This will be a boon to some readers, but a bust to others. In my case, seeking as I was a

discussion of planet formation and the Titius/Bode Law for planetary positions, it was disappointing not to find mathematical details.But this loss is more than compensated for by the interest generated by what the book does deliver so well --- the fact that "planets are places," as Carl Sagan liked to say, and not just moving dots in the night sky. And it is inspiring to realize that ours is the first generation to get to know them intimately as a result of space probes by Russia and the United States.I can think of no better birthday or Christmas gift for the amateur astronomer or the serious young science student than this stunning and awe-inspiring collection of photographs and scientific descriptions of the oldest objects around us, our "new" solar system.

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