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Book Review: New Eyes on the Universe: Twelve Cosmic Mysteries and the Tools We Need to Solve Them

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New eyes on the universe: twelve cosmic mysteries and the tools we need to solve them



Webb, Stephen. Springer/Praxis, 2012

371p, 9781461421931 \$44.95, 9781461421948

LC Call Number: QB28

Modern astronomers have at their disposal an arsenal of sensitive detectors on the ground and in space, spanning the entire electromagnetic spectrum. New instruments probe beyond the information that light can provide to search out the nature and origin of cosmic rays, WIMPs (weakly interacting massive particles), and gravitational waves. The result is a mind-boggling amount of data. Webb (Univ. of Portsmouth, UK; *Out of This World*, CH, Nov'04, 42-1629) explains in an engaging, nonmathematical way how this new generation of "telescopes" is being used to attack a dozen of the "cream of the crop" astronomical puzzles of current times--and why they are so important. Why is the universe blowing itself up? What are dark matter and dark energy? What is the origin of gamma ray bursts? Are there other Earth-like planets? Why have not extraterrestrial intelligences been detected? Webb's status report will appeal to any reader interested in astronomy. Liberal use of everyday analogies makes even the more difficult material easy to understand. The book is also something of a tour guide to many of the facilities, observatories, and spacecraft at the forefront of astronomy. Nonspecialists will appreciate the numerous color illustrations and helpful glossary.

Summing Up: Highly recommended. Students of all levels and general readers.

Reviewer: T. D. Oswalt, Florida Institute of Technology

Recommendation: Highly recommended

Readership Level: General Readers, Lower-division Undergraduates, Upper-division Undergraduates,

Graduate Students, Two-Year Technical Program Students

Interdisciplinary Subjects:

Subject: Science & Technology - Astronautics & Astronomy