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BEYOND THE KNOWN UNIVERSE: From Dwarf Stars to Quasars—I. M. Levitt—Viking Pr, 1974, 131 p., diagrams in color by John Gorsuch, photographs, \$10. Astronomer with a gift for making difficult concepts understandable to the layman, deals with such phenomena as the collapse and disappearance of stars, neutron stars, black holes and pulsars.

CARRYING THE FIRE: An Astronaut's Journeys—Michael Collins, foreword by Charles A. Lindbergh—FS&G, 1974, 498 p., photographs, drawings by author, \$10. Thoughtfully human and technically detailed autobiographical account of astronaut's experience with training for and accomplishing Gemini 10 mission and being in charge of the Apollo 11 command module.

PROPAGATION OF VISIBLE AND INFRARED RADIATION IN THE ATMOSPHERE—V. E. Zuev, transl. from Russian—IPST (Wiley), 1974, 405 p., diagrams, tables, \$32.50. Monograph gives results of theoretical and experimental studies of various aspects of absorption and scattering of atmospheric radiation, and of the propagation of tight light beams in the atmosphere.

TEXTBOOKS

ASTRONOMY: Fundamentals and Frontiers—Robert Jastrow and Malcolm H. Thompson—Wiley, 1974, 2nd ed., 535 p., color plates, photographs, diagrams, \$14.50. Text balances discussion of basic methods and description of the results of recent astrophysical research, keeping throughout the liberal arts student in mind.


FUNDAMENTAL ASTRONOMY: Solar System and Beyond—Franklyn W. Cole—Wiley, 1974, 476 p., photographs, diagrams, glossary, \$14.95. Text provides adequate grounding in astronomy for elementary and secondary school teachers. Eight useful appendixes include chapter on observational astronomy for the beginner.

AN INTRODUCTION TO ASTRONOMY—Lawrence W. Fredrick and Robert H. Baker—Van Nos Reinhold, 1974, 8th ed., 465 p., color plates, photographs, diagrams, glossary, paper, \$13.95. Revised and expanded popular text for nonscience majors, stresses modern observational astronomy, includes galactic structure, nuclear reactions in stars, infrared, gamma and X-ray astronomy, and evolution of life in cosmos.

A SEARCH FOR ORDER IN THE PHYSICAL UNIVERSE—Clifford E. Swartz and Theodore D. Goldfarb—W H Freeman, 1974, 315 p., color plates, 172 illus., tables, \$10.50. Text offers a contemporary perspective on the physical sciences through a study of interactions and a search for conserved quantities, particularly energy.

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SCIENCE TEACHERS

DON'T BANK ON THE BIG BANG

Before telling your students that the world started with a bang, you might like to know about a paper by A. D. Allen titled "The Big Bang is Not Needed" (to appear in *Foundations of Physics*, early 1975).

In essence, Allen shows that the first law of motion is all one needs to explain the fact that the universe is expanding. Since—if you'll pardon the pun—many physicists dislike the big bang to begin with, that theory may be on its way out.

If you're conversant in basic math, write us on your letterhead for a copy of Allen's paper. You might just get a big bang out of reading it.

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A Journey Through the Invisible Universe and the World of Radio Astronomy

The Invisible Universe

By G. L. Verschuur, University of Colorado, Boulder, Colorado

With this new book Dr. Verschuur achieves a rare goal—teaching and entertaining his readers simultaneously.

The Invisible Universe is an exciting account of the story of radio astronomy.

The author relates in an informal, non-mathematical way, what radio astronomy is, what radio astronomers have discovered out in space, and what these discoveries mean.

Students, from high school seniors on, and anyone who has been fascinated by a visit to a planetarium will enjoy this text and its profusion of captivating illustrations.

1974. xvii, 192p. 69 illus. paper/\$5.90

Heidelberg Science Library Volume 20

Galactic and Extra-Galactic Radio Astronomy

Edited by G. L. Verschuur and K. I. Kellermann

National Radio Astronomy Observatory, Green Bank, West Virginia

This book is concerned with the observational aspects of modern radio astronomy outside the Solar System. It begins where most textbooks on radio astronomy leave off, with a discussion of what is actually known from research in the field. Emphasis is placed on the type of data available and its interpretation. The book is aimed at graduate students and practicing astronomers, but is also suitable for senior astronomy courses.

1974. xii, 416p. 127 illus. cloth/\$37.80

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