and very clear; a number of unfortunate mistakes that crop up in the first few pages could make it confusing to newcomers (to whom, after all, it is addressed). One notes especially equation II.2 and the paragraph following II.6. The Regge continuation is developed for Yukawa potentials and a little pology is given. Van Hove has a short summary of shadow scattering that could be more readable. H. Harari of the Israel Atomic Energy Commission gives a clear sketch without proof of the principal results of unitary symmetry.

Puppi's twenty-page phenomenological survey of pionic resonances brings much new information together for the first time and is almost worth the price of the volume—or would be if it were longer.

The major contribution is that of Berman on weak interactions; the article is necessarily sketchy and goes only as far as conserved vector currents and intermediate vector bosons. Cabibbo sketches the description of leptonic decays as a symmetry-breaking of the octet model for the case where the current transforms according to a well-defined representation of SU_3. This gives a nice explanation for the slow rate of strangeness-changing leptonic decays and for the discrepancy of the Fermi constant derived from the muon lifetime with that derived from beta decay. The book closes with several seminars on recent experimental results.

As is often a disease of summer-school proceedings, this book lacks a bit in timeliness. But it is certainly a service to have it printed at all. The reader is warned not to trust the table of contents for page numbers until a second edition appears.

Systematics of β-Decay Energies. By B. S. Dzhelepov and F. Dranitsyna. Transl. from Russian by J. B. Sykes. 63 pp. (Pergamon, Oxford) Macmillan, New York, 1963. $3.50.
Reviewed by N. B. Gove, Oak Ridge National Laboratory.

This book deals mainly with semi-empirical mass formulas and their use in predicting beta-decay energies. Formulas due to Levy and to Cameron receive the most attention; 24 pages consist of graphs of beta-decay energy as predicted by Levy or Cameron versus mass number. Experimental values are also shown on the graphs so that one can discern "the discrepancies between experimental and theoretical data, and the points at which extrapolation is justified and those where it is hazardous".

The prospective buyer of this book is reminded that the publisher's date, 1963, applies to the translation only. The original was apparently written in 1959; the latest reference is dated 1958. Thus no mention is made of recent mass formulas of Seeger or Kümmel and no mention is made of recent studies of beta-decay energy systematics by Everling, or Way, or Dewdney.

The last twelve pages of the 5¢-a-page book contain a list of experimental beta-decay energies, as of March, 1959, compared with the Cameron and Levy predictions. By an ironic printer's error five pages are inadvertently titled "Cases of Large Discrepancy".

Sound and Ultrasound Waves in Air, Water, and Solid Bodies. By V. A. Krasil'nikov. Transl. from Russian. 354 pp. Israel Program for Scientific Translations, Jerusalem, 1963. $12.00.
Reviewed by Walter G. Mayer, Michigan State University.

Physical acoustics has grown steadily in the last two or three decades, and the author himself has made valuable contributions to this growth, particularly in the field of nonlinear acoustics. This book, however, differs quite markedly from his usual style and level of presentation.

The treatment is nonmathematical and descriptive and attempts to cover a wide territory, as the title indicates. There are ten chapters although one may group the topics in sections on sound in air, ultrasound in air, mechanical vibrations in liquids, elastic waves in solids, and finally one chapter each on high intensity waves and waves in the earth's crust. Rather than giving concise descriptions of what one might consider the important features of these topics, the author has selected a number of relevant samples for discussion.

Since the first edition of this book was written to overcome the inadequate treatment of advances in acoustics, one may wonder why the third edition does not even mention many interesting new subjects, especially those which show great promise in modern physical acoustics of solids. There are, however, some excursions into more modern areas like "aerothermoacoustics" (jet and turbulence noise), second sound in liquid helium, and high-intensity acoustic waves. The latter topic is discussed somewhat more extensively than the former two.

Some sections of the book do not really convey the feeling that progress is being made. Too much emphasis is placed on discussions of simple items like the telephone, tuning fork, and the oscilloscope. It is not apparent at all why photographs of an oscilloscope screen had to be included showing nothing more than a light spot and a vertical and horizontal line.

Unfortunately, the book contains errors, misleading and plainly wrong statements. There is no subject index and only a few complete references to books, mostly of Russian origin. There are many additional "bibliographical" footnotes, but in almost all instances only names are given while dates and sources are withheld. This unique documentation, together with the author's tendency to stress accomplishments of Russian scientists, may leave the casual reader uncertain about the chronological order of events as stated or implied in the text. The interested reader, on the other hand, should have little difficulty in filling in at least some of the missing dates, giving credit to unnamed authors for various figures, and supplying certain missing pieces of information readily available in the open literature.

Propagation of Radio Waves at Frequencies below 300 KC/S. W. T. Blackband, ed., 478 pp. (Pergamon, Oxford) Macmillan, New York, 1964. $20.00.
Reviewed by H. J. Hagger, Albiswerk Zurich, Switzerland.

This field of radio physics is important from two points of view. First, wave propagation at these low frequencies is becoming more and more important for world-wide radio transmissions of standard frequencies, and, second, nonmanmade signals from