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tering is meant (page 239). In addition, one thinks of important exceptions to some of the generalizations which are stated. In spite of these criticisms, the three editions which have already been published in Germany were well warranted, and this English edition may also be expected to be very successful.

**Introduction to Elementary Particle Physics.** By R. E. Marshak and E. C. G. Sudarshan. No. 11 of Tracts on Physics and Astronomy, edited by R. E. Marshak. 231 pp. Interscience Publishers, Inc., New York, 1961. Clothbound \$4.50, paperbound \$2.50. *Reviewed by Harold Mendlowitz, National Bureau of Standards.*

THE authors consider this book to be a continuation, in a sense, of a previous book entitled *Meson Physics*, written by the senior author. The field of elementary particles is pretty well covered up to 1961 and the book can serve as a quick reference to many of the basic ideas in this rapidly changing field. A second goal of the authors, that of addressing this book to the nonexpert in theoretical high-energy physics, is not quite achieved. The nonexpert in theoretical high-energy physics will find too many gaps in the explanations of a number of important concepts necessary for an understanding of the fundamental ideas underlying the discussions of the current problems in this field. Of course, for those people involved in the field, the discussions can be considered quite adequate. The newcomer to the field can, with the aid of the present volume and with reference to a good text on field theory, gain a good perspective of the problems and advances of present day high-energy physics.

**Mathematical Methods in Physics and Engineering.** By John W. Dettman. 323 pp. McGraw-Hill Book Co., Inc., New York, 1962. \$9.75. *Reviewed by Peter L. Balise, University of Washington.*

IN his preface, Dr. Dettman observes that students who plan to do graduate work in physics or engineering should, as undergraduates, take what has been traditionally called advanced calculus, followed by an applications course, for which his text is intended. In spite of this intent and the book's title, it is written strongly from the mathematics rather than applications viewpoint, particularly in comparison with many engineering-mathematics texts. Applications are frequently discussed, but without sacrificing mathematical rigor, so the book should perform the worthwhile service of attracting mathematics students to applied mathematics. Because of its clarity, the text should also be useful in physics and engineering curricula, although students here will need more mathematical maturity than is common at the undergraduate level.

The content as well as the exposition has a modern or advanced orientation. For example, the typical chapter on vector analysis is absent. Instead, after a review of the summation convention, the student is asked to