

contained a minor error, and that he had never seen 50 pages of mathematical work without a serious mistake. The author now informs the reviewer that a mimeographed list of errata for this book can be obtained by writing to him.

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Probability theory. Foundations. Random sequences. By M. Loève. Toronto, Van Nostrand, 1955. 15+515 pp. \$12.00.

The mathematical theory of probability has been well established in its modern form for about twenty years, but Loève's is the first (non-elementary) textbook on the subject. That is to say, there has been no textbook which, like a textbook covering any other advanced mathematical subject, gives the fundamental definitions, basic theorems, and enough further development to lead the reader into the really advanced literature. Feller's *Probability theory and its applications* (1950) is superlative as far as it goes (only through discrete probabilities), but the promised further volumes are still keeping company with the other unborn descendants of first volumes, an illustrious group. The reviewer's *Stochastic processes* (1953) has been the closest approach to a probability textbook, but, as its title indicates, this book was neither written as nor intended to serve as a general textbook, and its choice of topics and emphasis were dictated by its title. Authors have been willing to write specialized probability books, of which there have been many, besides the two just mentioned, by Bartlett, Blanc-Lapierre and Fortet, Fortet, Gnedenko and Kolmogorov, Ito, Lévy, but the drudgery involved in writing a systematic and complete text has not been attractive. Thus, even if Loève's book were not as successful as it is, he would still deserve the thanks and respect of the mathematical community for writing it.

The mathematical theory of probability is now a branch of measure theory, with certain specializations and emphasis derived from the applications and the historical background. As the historical conditioning loses its significance for newer generations of mathematicians, the place of probability theory in measure theory becomes more and more difficult to describe. One slightly frivolous description, which, however, is about as accurate a description as can be given, is that probability is the one branch of measure theory, and in fact the one mathematical discipline, in which measurable functions as such are considered in detail, and their integrals evaluated. (The fact that the integration of smooth functions on intervals can be considered as that of measurable functions is of course discounted here.) In fact,