should become more and more intertwined. This book will help to accelerate the mixing process.

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Probability theory. By Michel Loève. 2d ed. Princeton, D. Van Nostrand Co., Inc. 16+685 pp. $14.75.

The second edition differs from the first principally in the addition of about 150 pages on continuous parameter stochastic processes. According to the first edition preface, calculus was a prerequisite. The second edition prerequisite is "honest" calculus. A student whose calculus course has been honest enough to prepare him for this difficult book is indeed fortunate. Even with his new section, Loève keeps to his original optimistic estimate that the material can be covered in about three to four semesters. However there is one concession: he simplifies at least his preface by warning the unlearned reader to be armed with "patience, pen, and calculus" instead of the first edition's "patience, pebble, and reed."

Loève's first edition marked the end of a golden research era in probability theory, in which the subject had been advancing too fast to be treated by anything but research articles, specialized or research books, and elementary texts. He was the first to attempt a text covering the most significant aspects of the subject in a rigorous manner. Even the over 600 pages of the second edition have of course necessarily omitted many things of interest, although the exceedingly compact style sometimes goes beyond letting the reader see beauty bare, in fact forcing him to guess at the beauty from the skeleton. But he has shown it possible to write a reasonably complete text as a central core, from which specialized works can radiate. His material includes far more than recent advanced texts by Fisz and Richter, written in a more leisurely style. Even though probability theory has reached the textbook stage, however, it seems premature to include as little history as Loève does. A bibliography is a poor substitute for frequent remarks on the background of the subject, including at least some dates if name-dropping is considered too hazardous.

Loève's new section has two chapters, both under the general heading "Elements of random analysis": XI Foundations; martingales and decomposability; XII Markov processes. "Foundations" contains a discussion of separability of processes, sample function continuity, and related topics. "Martingales" discusses martingales. "Decomposability" discusses what are called by various authors "integrals with independent elements," "additive processes," "differential processes," "processes with independent increments" and now