

level, and as such represents an effort on the part of the author which all too few mathematicians undertake nowadays.

As regards its mathematical content, the unifying theme is indicated exactly by the title of the monograph; the main outlines of the historical development of the notion of statistical independence are laid out, and it is shown how this notion has proved to be a keystone of analysis and number theory, as well as of probability and statistics, with which it is more usually associated. With a view to kindling interest by making the underlying ideas more accessible, the author has chosen to omit some details, but he gives a bibliography adequate for leading the interested reader back to the literature. Some knowledge is supposed of Lebesgue measure and integration, Fourier integrals and number theory.

Most of the development hinges ultimately on the specific realization of statistical independence provided by the Rademacher functions. The range of problems considered is very broad, including continued fractions, the law of large numbers and the central limit theorem, normal numbers, prime numbers and additive number-theoretic functions, the ergodic theorem, and the convergence of series with random signs. None of these topics is treated at all intensively, but the rich flow of ideas, the many interrelations which are brought out, and the elegance of exposition, all contribute to provide a remarkable panoramic view of one mathematical landscape.

Professor Kac is an ardent exponent of the theory that what is newest is not always what is best, and he takes the opportunity here to argue against what he considers overemphasis on abstraction in modern mathematics. This is first-class hortatory writing, and it should be read by every graduate student, along with Bourbaki.

W. J. LEVEQUE

*Formes sesquilineaires et formes quadratiques.* By N. Bourbaki. *Éléments de Mathématique I, Livre II. Actualités Scientifiques et Industrielles*, no. 1272, Paris, Hermann, 1959. 211 pp.

This is volume 24 of Bourbaki's *Elements* (in the simple minded numbering system that seems to serve better than calling it Chapter 9 of Book 2 of Part I). From an impetuous youth who dared to announce that he planned to write up all of mathematics, N. Bourbaki has turned into a middle aged fixture gallantly and interminably teaching us how to do things right. Addicts expect more from Bourbaki—and they get it: a text ranging from watery soup to several solid meat courses, with a stunning collection of exercises for hors