

This reviewer has some reservations about attempting to introduce students to programming and to numerical analysis in the same course. He believes that it is better to defer the introduction of computers until the students have mastered some of the basic ideas of numerical analysis. However, this book could be most useful for those instructors who think otherwise, and would like to teach both subjects more or less simultaneously.

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Théorie des Probabilités et Quelques Applications, by P. L. Hennequin and A. Tortrat. Masson et Cie., Paris, 1965. 458 pages. Price: 88 F.

This book breaks down into two parts. The first begins with a thorough and elegant presentation of the basic mathematical tools of probability theory, namely, measure and integration theory, the concept of compact pavings of sets, the Riemann-Stieltjes integral and the Radon-Nikodym theorem. This is followed by a careful exposition of characteristic functions including the application to the study of infinitely divisible laws. There is a chapter on conditional probabilities including Jirina's result on the existence of regular conditional probabilities (unfortunately stated only for  $\sigma$ -algebras of countable type). Finally there is a chapter on limit theorems for sequences of random variables including an exposition of the Prohorov convergence theorem which does not appear in any of the older texts on probability.

The second part is devoted to a study of a few more specialized topics. This begins with a short discussion of estimation, decision theory and hypothesis testing in statistics followed by a discussion of Kolmogorov-Smirnov statistics and the determination of their asymptotic distributions by the method of Doob. The book closes with one of the best discussions of Markov chains to be found in the literature including an introduction to the potential theory of Markov chains.

The book is well referenced and contains a modest supply of exercises. It would make a good text for a course in probability theory for the mathematically mature student.

Donald Dawson, McGill University

Elements of Finite Probability, by J. L. Hodges, Jr. and E. L. Lehmann. Holden-Day, Inc., San Francisco, London, Amsterdam, 1965. vi + 227 pages.

This book is Part I of the earlier book Basic Concepts of Probability and Statistics, written by the same two authors and is supplemented by two new sections on the law of large numbers and sequential stopping at the end of Chapter 6. It is an ideal text for a one quarter or one semester