

proof. A complete classification of semi-simple Lie groups is given in this way. Among the other topics discussed are compact Lie groups and groups of continuous transformations.

This book should prove of invaluable aid both to the beginner in the field of topological groups and to the more advanced student. While a number of typographical errors were found, they should not prove confusing to an alert reader.

W. T. PUCKETT, JR.

*Statistical Methods.* By Paul R. Rider. New York, Wiley, 1939. 9+220 pp.

This book has two aims: first, to serve as a textbook for an elementary course in statistics, and second, to help students with some previous knowledge of statistics to gain an insight into the more modern methods. It proceeds from some preliminary development of the classical theory, through such topics as "Student's" distribution, to the various significance tests associated with the  $\chi^2$  and Fisher  $z$  distributions. The notation of the calculus is used in a number of the formulas. However, so much emphasis is placed on the practical applications of the theory that the statistical worker who uses the book as a laboratory manual will probably not find the mathematical notation disconcerting, no matter what his previous mathematical training may have been.

The classical theory is presented in Chapters I-IV and the first part of Chapter V. Chapters I and II are concerned with the elementary theory of frequency distributions, and with averages and moments. Chapter III contains a discussion of regression, with an exposition of Fisher's method of handling the normal equations in the case of multiple regression. Chapter IV is on simple and multiple correlation, and deals entirely with the observational theory. In Chapter V we find brief descriptive treatments of such topics as the continuous approximation to the binomial distribution, the normal and Gram-Charlier type A distributions, the significance of the difference between two means and two proportions, the significance of correlation coefficients (tested by means of Fisher's logarithmic transformation); and there is also an introduction to the theory of confidence limits. In Chapter VI, we are introduced to "Student's"  $t$  distribution which is then applied to appropriate problems, such as testing the significance of regression coefficients. At the beginning of Chapter VII the  $\chi^2$  distribution is described, and there follow the usual applications to homogeneity tests, tests of goodness of fit, and contingency