

BOOK REVIEWS

On the Principles of Statistical Inference. By Abraham Wald. (Notre Dame Mathematical Lectures, No. 1.) Notre Dame, Indiana, 1942. 50 pp. \$1.00.

The University of Notre Dame has started its new series of mathematical publications, the "Notre Dame Mathematical Lectures," by four lectures on modern theory of statistics, delivered by one of its most brilliant proponents, Dr. Abraham Wald. While wishing the new series the best of success one can somewhat regret that, probably, considerations of cost have prevented it from appearing in a printed form. The little book is lithoprinted and lithoprinted very well, with all the formulas perfectly legible. Still, in a printed form it would look much better. We may hope that in time a private benefactor or an institution will be found who could provide funds for giving good mathematical publications the external form that they deserve.

As mentioned, Dr. Wald's booklet contains four lectures. However it is divided into six chapters, I. Introduction, II. The Neyman-Pearson theory of testing of a statistical hypothesis, III. R. A. Fisher's theory of estimation, IV. The theory of confidence intervals, V. Asymptotically most powerful tests and asymptotically shortest confidence intervals, and VI. Outline of a general theory of statistical inference. Having in view a mathematical reader the booklet has nothing in common with numerous books "on statistical methods;" is not concerned with applied problems of a particular character but deals with fundamental conceptions, actually covering about all the most important that were achieved during the last 25 years or so. Compared with this scope the size of the booklet is very small and therefore the presentation of certain sections necessarily short. This applies especially to the first 28 pages, given to the description of what had been done before Dr. Wald himself appeared as an active contributor to the theory of statistics with his conceptions of asymptotically most powerful tests and of general statistical inference. In spite of the shortness of presentation the book is exceedingly informative. In fact, it could be used as an excellent source of information for all those mathematical readers who, without hunting for articles spread in a number of journals, would like to get a bird's eye view of what is being done in the field of mathematical statistics.

There are just two gaps that one can regret in the latter respect.