

PREFACE

This book on mathematical statistics is the third of the series of Carus Mathematical Monographs. The purpose of the monographs, admirably expressed by Professor Bliss in the first book of the series, is "to make the essential features of various mathematical theories more accessible and attractive to as many persons as possible who have an interest in mathematics but who may not be specialists in the particular theory presented."

The problem of making statistical theory available has been changed considerably during the past two or three years by the appearance of a large number of textbooks on statistical methods. In the course of preparation of the manuscript of the present volume, the writer felt at one time that perhaps the recent books had covered the ground in such a way as to accomplish the main purposes of the monograph which was in process of preparation. But further consideration gave support to the view that although the recent books on statistical method will serve useful purposes in the teaching and standardization of statistical practice, they have not, in general, gone far toward exposing the nature of the underlying theory, and some of them may even give misleading impressions as to the place and importance of probability theory in statistical analysis.

It thus appears that an exposition of certain essential features of the theory involved in statistical analysis would conform to the purposes of the Carus Mathematical Monographs, particularly if the exposition could be