

# Die Grundlehren der mathematischen Wissenschaften

in Einzeldarstellungen  
mit besonderer Berücksichtigung  
der Anwendungsgebiete

Band 202

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# Introduction to Mathematical Statistics

Translated from the German  
by Kenneth Wickwire



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## Preface

I have used the opportunity of the second edition of the German version being translated into English to alter and improve some details. Of course I tried to correct misprints and errata of the original version. Moreover some proofs have been slightly changed and I hope thereby improved. In many instances more recent results have been inserted in the text, for example the treatment of the infinite dimensional linear programmes in the third chapter and the investigation of superefficiency in the 5th Chapter. On the whole I enlarged the references by pointing to more recent papers. In doing so I have considered the literature up to 1971. The 7th chapter is left unchanged although there has been particular progress in developing the theory of non-parametric statistical inference: Analysis and Probability theory as treated in the Introduction and in the first chapter would have been an insufficient background for this study. At least the concept of the contiguity of measures would have had to be introduced. Moreover the excellent book by J. Hájek and J. Šidak, "Theory of Rank Tests" has in the meantime been published.

I am greatly indebted to Mr. Wickwire who translated almost the entire original text into English.—Mr. Wickwire has succeeded in rendering an almost literal translation of often linguistically difficult German structures. Let me then heartily thank my colleague Professor Pfanzagl, University of Cologne, who read the entire English manuscript and gave me several important hints. Dr. Sendler, University of Dortmund, accepted the cumbersome task of reading the galley proofs. Many improvements are due to his efforts. Mess. Grossmann and Pflug, University of Vienna assisted in the compilation of the voluminous references. I should also like to express my gratitude to Professor

Eckmann and Professor van der Waerden for their decision to incorporate this translated version in the "Grundlehren". In 1973 I spent several months at Bowling Green State University during which time I was able to read and correct a large portion of the page proofs. I should like to express my appreciation to Bowling Green University and in particular to Professor E. Lukacs.

Last but not least I owe many thanks to Springer-Verlag. Not only did they overcome all difficulties which arose in connection with the translation but they also always respected all my wishes.

I hope very much that the English version will be accepted as kindly as the German was.

Vienna, in Summer 1974

L. Schmetterer

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