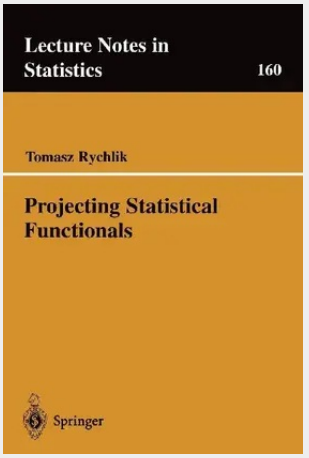
Rychlik

Projecting Statistical Functionals

About 10 years ago I began studying evaluations of distributions of or der statistics from samples with general dependence structure. Analyzing in [78] deterministic inequalities for arbitrary linear combinations of order statistics expressed in terms of sample moments, I observed that we obtain the optimal bounds once we replace the vectors of original coefficients of the linear combinations by the respective Euclidean norm projections onto the convex cone of vectors with nondecreasing coordinates. I further veri fied that various optimal evaluations of order and record statistics, derived earlier by use of diverse techniques, may be expressed by means of projec tions. In Gajek and Rychlik [32], we formulated for the first time an idea of applying projections onto convex cones for determining accurate moment bounds on the expectations of order statistics. Also for the first time, we presented such evaluations for non parametric families of distributions dif ferent from families of arbitrary, symmetric, and nonnegative distributions. We realized that this approach makes it possible to evaluate various func tionals of great importance in applied probability and statistics in different restricted families of distributions. The purpose of this monograph is to present the method of using pro jections of elements of functional Hilbert spaces onto convex cones for es tablishing optimal mean-variance bounds of statistical functionals, and its wide range of applications. This is intended for students, researchers, and practitioners in probability, statistics, and reliability.

This book unifies a large number of results concerning the quantile function and order statistics. The audience will be statisticians and some probabilists or people using statistics.



106,99 €
99,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9780387952390
Medium: Buch
ISBN: 978-0-387-95239-0
Verlag: Humana
Erscheinungstermin: 20.04.2001
Sprache(n): Englisch
Auflage: Erscheinungsjahr 2001
Serie: Lecture Notes in Statistics
Produktform: Kartoniert
Gewicht: 300 g
Seiten: 175
Format (B x H): 155 x 235 mm

Kundenservice Verlag Dr. Otto Schmidt KG
Neumannstraße 10, 40235 Düsseldorf | kundenservice@otto-schmidt.de | 0221-93738-997 (Inland)