

P. Groeneboom, J. A. Wellner: INFORMATION BOUNDS AND
NONPARAMETRIC MAXIMUM
LIKELIHOOD ESTIMATION

(DMV Seminar 19) Birkhäuser, Basel, 1992. pp. 136, DM 54.-

This book presents lectures given by the authors in connection with a DMV seminar at Günzburg in September 1992. Part I is based on the lecture by J. A. Wellner, which lays emphasis on information lower bound theory like Hajek's convolution theorem and generalizations, minimax bounds for parametric problems due to Ibragimov and Hasminskii, and van der Vaart's characterization of differentiable functionals. In particular, differentiability theory is illustrated by examples concerning interval censoring and deconvolution. These examples are discussed from the estimation theoretical point of view in part II, which is based on P. Groeneboom's

95

lecture. In particular, nonparametric maximum likelihood estimates are characterized by an approach based on isotonic regression theory, which yields in addition efficient algorithms and leads also to distribution theory.

D. Plachky (Münster)