
Zeitschrift für
**Wahrscheinlichkeits-
theorie** und
verwandte Gebiete

Probability Theory and Stochastics

Band 65 (Schluß-)Heft 4 1984

- 483 **A. Dabrowski, H. Dehling, W. Philipp:** An Almost Sure Invariance Principle for Triangular Arrays of Banach Space Valued Random Variables
- 493 **I. Shigekawa:** Transformations of the Brownian Motion on a Riemannian Symmetric Space
- 523 **E. Häusler:** An Exact Rate of Convergence in the Functional Central Limit Theorem for Special Martingale Difference Arrays
- 535 **P. Imkeller:** Ito's Formula for Continuous (N, d) -Processes
- 563 **R.W.R. Darling:** Approximating Ito Integrals of Differential Forms and Geodesic Deviation
- 573 **M. Chaleyat-Maurel, D. Michel:** Hypocoellipticity Theorems and Conditional Laws
- 599 **F. Götze:** Expansions for von Mises Functionals
- 627 **S.B. Shlosman:** The Influence of Non-Commutativity on Limit Theorems

Zeitschrift für
**Wahrscheinlichkeits-
theorie** und
verwandte Gebiete

Probability Theory and Stochastics

Band 66 Heft 1 1984

- 1 **G. Kallianpur, R.L. Karandikar:** Measure-Valued Equations for the Optimum Filter in Finitely Additive Nonlinear Filtering Theory
- 19 **N.-M.-Duc, N.-X.-Loc:** On the Transformation of Martingales with a Two Dimensional Parameter Set by Convex Functions
- 25 **Z. Huang:** Stochastic Integrals on General Topological Measurable Spaces
- 41 **F. Portal, A. Touati:** Théorèmes de grandes déviations pour des mesures aléatoires
- 61 **R.A. Maller:** Relative Stability of Trimmed Sums
- 81 **A.F. Karr:** Combined Nonparametric Inference and State Estimation for Mixed Poisson Processes
- 97 **P.L. Chesson:** Persistence of a Markovian Population in a Patchy Environment
- 109 **R. Cogburn:** The Ergodic Theory of Markov Chains in Random Environments
- 129 **K.B. Erickson:** Rate of Expansion of an Inhomogeneous Branching Process of Brownian Particles
- 141 **N.C. Jain, W.E. Pruitt:** An Invariance Principle for the Local Time of a Recurrent Random Walk

The Annals of Statistics

Vol. 12

December 1984

No. 4

Special Invited Paper

Bayesianly justifiable and relevant frequency calculations for the applied
statistician DONALD B. RUBIN

Articles

- Admissibility, difference equations and recurrence in estimating a Poisson
mean IAIN JOHNSTONE
- Average width optimality of simultaneous confidence bounds DANIEL Q. NAIMAN
- Bandwidth choice for nonparametric regression JOHN RICE
- The consistency of automatic kernel density estimates
..... LUC DEVROYE AND CLARK S. PENROD
- Distribution-free lower bounds in density estimation
..... LUC DEVROYE AND CLARK S. PENROD
- On a class of nonparametric density and regression estimators V. K. KLONIAS
- An asymptotically optimal window selection rule for kernel density estimates
..... CHARLES J. STONE
- Empirical distributions in selection bias models Y. VARDI
- Comment on Vardi's paper C. L. MALLOWS
- Asymptotic behavior of M -estimators of p regression parameters when p^2/n is large I.
consistency STEPHEN PORTNOY
- On the stability of Bayes estimators for Gaussian processes IAN W. MCKEAGUE
- Some model robust designs in regression JEROME SACKS AND DONALD YLVISAKER
- Robust regression based on infinitesimal neighbourhoods P. J. BICKEL
- Asymptotic normality for a general class of statistical functions and applications to
measures of spread PAUL JANSSEN, ROBERT SERFLING, AND NOËL VERAVERBEKE
- Asymptotic efficiency of estimators of functionals of mixed distributions
..... LUKE TIERNEY AND DIANE LAMBERT
- Asymptotic properties of maximum likelihood estimates in the mixed Poisson model
..... DIANE LAMBERT AND LUKE TIERNEY
- Bootstrap and cross-validation estimates of the prediction error for linear regression
models OLAF BUNKE AND BERND DROGE
- Order selection in nonstationary autoregressive models RUEY S. TSAY
- Estimation of a noisy discrete-time step function: Bayes and empirical Bayes approaches
..... YI-CHING YAO
- All admissible linear estimators of the mean of a Gaussian distribution on a Hilbert
space AVI MANDELBAUM
- Tail estimates motivated by extreme value theory
..... RICHARD DAVIS AND SIDNEY RESNICK
- On analysis of variance in the mixed model K. G. BROWN
- Generating the intrablock and interblock subgroups for confounding in general factorial
experiments BRUCE JAY COLLINGS

Short Communications

- A large deviation result for the likelihood ratio statistic in exponential families
..... STAVROS KOUROUKLIS
- Bahadur optimality of sequential experiments for exponential families
..... STAVROS KOUROUKLIS
- On Karlin's conjecture for random replacement sampling plans
..... O. KRAFFT AND M. SCHAEFER
- The nature of simple random sampling S. K. MITRA AND P. K. PATHAK
- Estimating an endpoint of a distribution with resampling methods WEI-YIN LOH
- Turning probabilities into expectations MICHAEL GOLDSTEIN
- Detection of multivariate outliers in elliptically symmetric distributions
..... BIMAL KUMAR SINHA
- On nonnegative quadratic unbiased estimability of variance components
..... THOMAS MATHEW
- Distribution-free pointwise consistency of kernel regression estimate
..... WŁODZIMIERZ GREBLICKI, ADAM KRZYŻAK, AND MIROSZAW PAWLAK
- An asymptotic expansion of the nonnull distribution of Wilks criterion for testing the
multivariate linear hypothesis R. W. KULP AND B. N. NAGARSENKER
- Consistency in the location model: the undominated case ALBERT Y. LO

Book Review on *Generalized Linear Models* by McCullagh and Nelder

IMS LECTURE NOTES – MONOGRAPH SERIES

This series provides an avenue for the rapid, but carefully refereed, publication of important research results in comprehensive form and expository style. These volumes should be of great value to researchers and advanced students in statistics, probability, and related fields. The series editor is Shanti S. Gupta, Purdue University.

3 **EMPIRICAL PROCESSES**

by Peter Gaenssler, University of Munich

A thorough and detailed description of topics in the timely and growing area of empirical processes.

This volume combines new and familiar results in a context that leads to broad unification and simplification of methods, and to prospects for new kinds of applications.

This work is mainly concerned with limit theorems for empirical measures and C-processes.

179 pages

List price \$20

IMS members \$12

4 **ZONAL POLYNOMIALS**

by Akimichi Takemura, Purdue University

A self-contained development of zonal polynomials in the framework of standard multivariate analysis.

Zonal polynomials have been used extensively in the study of noncentral multivariate distributions.

This easily understood treatment uses only the standard tools of linear algebra and multivariate normal distribution theory.

110 pages

List price \$15

IMS members \$9

5 **INEQUALITIES IN STATISTICS AND PROBABILITY**

edited by Y.L. Tong, University of Nebraska

Proceedings of the Symposium on Inequalities in Statistics and Probability held in Lincoln, Nebraska during October 1982.

This volume reports on the recent rapid growth in the field of inequalities due, in part, to widespread applications in reliability theory, in multivariate nonnormal analysis, and in optimization and constraint problems.

The volume contains thirty expository and research papers by leaders in the field.

263 pages

List price \$25

IMS members \$15

& **ADDITIONAL TITLES**

Previously published: Volume 1, *Essays on the Prediction Process* by Frank Knight (\$10/members \$8); Volume 2, *Survival Analysis* edited by John Crowley and Richard A. Johnson (\$25/members \$15). Forthcoming: *The Likelihood Principle* by J. Berger and R. Wolpert, *Group Theory in Statistics* by P. Diaconis, *Approximate Computations of Expectations* by C. Stein, and *Foundations of Exponential Families* by L. Brown.

Prepaid orders for individual volumes and requests for standing order enrollments (eligible for 20% prepublication discounts from list prices) should be sent to

Institute of Mathematical Statistics
3401 Investment Blvd., #6
Hayward, CA 94545 (USA)