# Probability Theory and Related Fields

Zeitschrift für Wahrscheinlichkeitstheorie

#### Volume 83 Numbers 1-2 1989

#### Dedicated to Klaus Krickeberg on the occasion of his 60th birthday

- 1 H. Rost: Grußwort des Herausgebers/Letter from the editor
- 4 D. Kendall: Eulogy
- 5 H. Dinges: Special Cases of Second Order Wiener Germ Approximations
- 59 W.J. Bühler, P.S. Puri: The Linear Birth and Death Process Under the Influence of Independently Occurring Disasters
- 67 E. Born, K. Dietz: Parasite Population Dynamics Within a Dynamic Host Population
- 87 X. Fernique: Fonctions aléatoires à valeurs dans certains espaces nucléaires
- 101 O. Kallenberg, J. Szulga: Multiple Integration with Respect to Poisson and Lévy Processes
- 135 D.A. Dawson, I. Iscoe, E.A. Perkins: Super-Brownian Motion: Path Properties and Hitting Probabilities
- 207 E. Csáki: An Integral Test for the Supremum of Wiener Local Time
- 219 M. Chaleyat-Maurel, J.-F. Le Gall: Green Function, Capacity and Sample Path Properties for a Class of Hypoelliptic Diffusion Processes
- 265 F. Papangelou: On the Gaussian Fluctuations of the Critical Curie-Weiss Model in Statistical Mechanics
- 279 J.D. Deuschel, D.W. Stroock: A Function Space Large Deviation Principle for Certain Stochastic Integrals

#### Volume 83 Number 3 1989

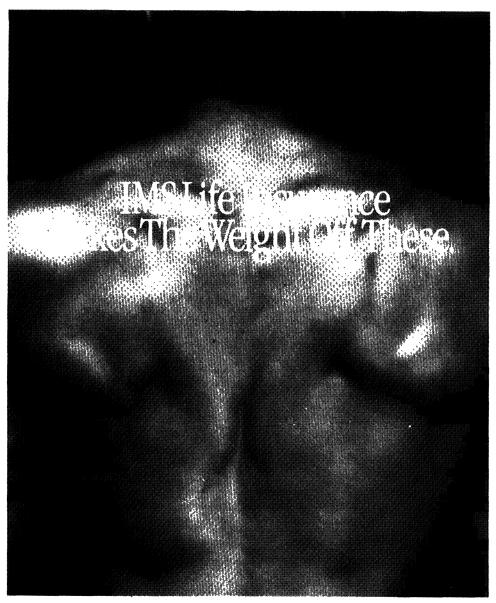
- 309 W.A. Rosenkrantz: Ergodicity Conditions for Two-dimensional Markov Chains on the Positive Quadrant
- 321 J.C. Taylor: Do Minimal Solutions of Heat Equations Characterize Diffusions?
- 331 I. Berkes, H. Dehling: Almost Sure and Weak Invariance Principles for Random Variables Attracted by a Stable Law
- 355 P. McGill: Wiener-Hopf Factorisation of Brownian Motion
- 391 G. Ferreyra: Approximation of Stochastic Equations Driven by Predictable Processes
- 405 S. Albeverio, M. Röckner: Classical Dirichlet Forms on Topological Vector Spaces—the Construction of the Associated Diffusion Process

#### Volume 83 Number 4 1989 Last issue of this volume

- 435 A. Galves, R. Schinazi: Approximations finies de la mesure invariante du processus de contact sur-critique vu par la première particule
- 447 O. Kallenberg: General Wald-type Identities for Exchangeable Sequences and Processes
- 489 A. Frigerio, H. Maassen: Quantum Poisson Processes and Dilations of Dynamical Semigroups
- 509 P. Boxler: A Stochastic Version of Center Manifold Theory
- 547 G.J. Babu: Strong Representations for LAD Estimators in Linear Models

Contents of Volume 83

Covered by Zentralblatt für Mathematik and Current Mathematical Publications



Your Association uses group purchasing power to negotiate top quality Term Life Insurance, at a very low price. What's more, it's insurance specially designed for your professional needs. It can be tailored for the individual, and it can stay with you even if you change jobs.

To take advantage of this benefit of membership—and take the weight off

your shoulders—call 1-800-424-9883 for further details (in Washington, D.C. call 457-6820).

## IMS INSURANCE Designed by Members. For Members.

The IMS Life Plan is underwritten by New York Life Insurance Company, New York, New York 10010 on form number GMR

### The Annals of Probability April 1990

No. 2

Vol. 18

Articles
Universal almost sure data compression Donald S. Ornstein and Paul C. Shields Polar sets and multiple points for super-Brownian motion
The probability of a large finite cluster in supercritical Bernoulli percolation  HARRY KESTEN AND YU ZHANG
Entropy analysis of a nearest-neighbor attractive/repulsive exclusion process on one-dimensional lattices
Maximal inequalities for multidimensionally indexed submartingale arrays  TASOS C. CHRISTOFIDES AND ROBERT J. SERFLING
On direct convergence and periodicity for transition probabilities of Markov chains in random environments
Poisson approximation using the Stein-Chen method and coupling: Number of exceedances of Gaussian random variables
Lars Holst and Svante Janson A note on the rat of Poisson approximation of empirical processes Lajos Horváth On approximating probabilities for small and large deviations in $\mathbb{R}^d$ J. Robinson, T. Höglund, L. Holst and M. P. Quine
Some applications of isoperimetric methods to strong limit theorems for sums of independent random variables
Local limit theorems for sums of finite range potentials of a Gibbsian random field  F. GÖTZE AND C. HIPP
Relative entropy densities and a class of limit theorems of the sequence of m-valued random variables
Mark M. Meerschaert Conditions for quasi-stationarity of the Bayes rule in selection problems with an unknown number of rankable options
F. Thomas Bruss and Stephen M. Samuels Optimal convergence rates in signal recovery

# CALL FOR PAPERS

# THE ANNALS OF APPLIED PROBABILITY Volume 1, Number 1, February 1991

The Institute of Mathematical Statistics will publish the first issue of its new journal, *The Annals of Applied Probability*, in February 1991.

In addition to welcoming papers in all the traditional areas of applied probability, the new *Annals* particularly hopes to attract work that develops and deepens the interplay of probability and other fields, including computer science, finance, network modeling, and biology.

Submissions are now being considered for publication and should be directed to:

J. Michael Steele, *Editor*School of Engineering and Applied Science
E-220 Engineering Quadrangle
Princeton University
Princeton, NJ 08544 (USA)

Four copies should be submitted and authors are requested to follow the instructions which appear at the front of each issue of *The Annals of Probability* or *The Annals of Statistics*.