The Institute of Mathematical Statistics

announces the publication of

Directions in Time Series

Table of Contents

Keynote Address

Can We Predict Where "Time Series" Should Go Next? John W. Tukey

Time Series Models

Parametric Time Series with Some Applications George E. P. Box Maximum Likelihood Estimation for Vector Autoregressive Moving Average Models T. W. Anderson

Computer Packages and Graphics

What Will Your Time Series Analysis Computer Package Do? David J. Pack Time Series Modeling, Spectral Analysis, and Forecasting Emanuel Parzen Some Remarks on Time Series Graphics William S. Cleveland and Douglas M. Dunn

Econometric Models

Some Recent Developments in Seasonal Adjustment David A. Pierce Comments. John Geweke

On the Synthesis of Time Series and Econometric Models C. W. J. Granger Comments. John Geweke Comments. Kenneth F. Wallis

Control Theory and Engineering Applications

On the Identification of State Space Models and Their Use in Control Hirotugu Akaike

System Identification, Kalman Filtering, and Stochastic Control M. B. Priestley

Self-Tuning Algorithms for Control, Prediction and Smoothing Bjorn Wittenmark

Robust Methods

Robust Estimation of Autoregressive Models R. Douglas Martin Comments. Robert B. Miller

Continuous Processes and Periodic Models

Continuous Model Fitting from Discrete Data P. M. Robinson Comments. David A. Dickey

Some Recent Advances in Autoregressive Processes Marcello Pagano Comments. Herbert T. Davis

Order Pre-paid from:

The Institute of Mathematical Statistics 3401 Investment Boulevard, Suite 6 Hayward, California 94545 (USA)

EDITOR, SHANTI S. GUPTA

Essays on the Prediction Process by Frank Knight

This work concerns a new approach to continuous time random processes due originally to the author, but extended and consolidated by P. A. Meyer and others. It is a fluid and subjective approach, in distinction to the rigid and objective one prevalent in other treatments. This leads to a broad unification of method, and consequently to a setting of almost universal applicability. Each of the four essays contains a different aspect of the subject, without being exhaustive.

Essay I. Introd	duction, Construct	ion, and Fundamental Pro	perties
 The Prediction Prediction A View Tox 	ction Process of a	Right-Continuous Proce	ss with Left
		mple of C. Dellacherie	
 The Proces The Predic Connection 	is R_t tion Process of R_t ns With the Gener	al Prediction Process	
Probabilities.		stationary Strong-Markov	
References	;		
Essay IV. App	olication of the Pre	diction Process to Martin	gales
 The Martin Transition On Contin 	ngale Prediction Sp to the Initial Settin nuous Local Marting	aces ng: The Levy System of a P gales	rocess
		\$10.00 8.00	

Order Pre-paid from:

The Institute of Mathematical Statistics 3401 Investment Boulevard, Suite 6 Hayward, California 94545 (USA)

The Institute of Mathematical Statistics and

The American Statistical Association

announce publication of

CURRENT INDEX TO STATISTICS: APPLICATIONS, METHODS AND THEORY

An annual computerized index to the statistical literature

Coverage—Over 7,000 articles in "core" and "related" journals are indexed. Author index and index by key words. Example of subject index (complete reference to journal, volume, pages, etc., is given):

Asymptotic Properties of Non-linear Least Squares Estimators • R. I. Jennrich Interval Estimation of Non-linear Parametric Functions • Halpern, Mantel Interval Estimation of Non-linear Parametric Functions, II • M. Halpern

On a Problem in Non-linear Prediction Theory • J. B. Robertson
Convergence in Non-linear Regression • T. Tornheim

Non-linear Regression with Minimal Assumptions • H. M. Wagner
Non-linear
Discrimination Among Mechanistic Models • G.E.P. Box
New Analysis of Variance Model for Nonadditive Data • J. Mandel
Simplified Experimental Design • M. J. Box

Who should subscribe—All individuals who spend any significant fraction of their time doing statistics. Anyone who spends more than one hour per year looking for an article on a particular topic in statistics or redeveloping some technique that already exists in the literature will find it cost effective to have a personal copy of this index.

Editor-James E. Gentle, IMSL, Inc.

Management Committee—Donald A. Gardiner, Chairman; Heebok Park, Seymour Geisser, David Hoaglin, David L. Wallace

Subscription Rates—Vols. 2-5 (per vol.) [VOLUME 1 OUT OF PRINT]
Nonmember \$ 22.00; Member \$ 11.00
Vol. 6 (per vol.)
Nonmember \$ 26.00; Member \$ 13.00

Send orders and remittance to-

The Institute of Mathematical Statistics Business Office 3401 Investment Blvd. Suite 6 Hayward, California 94545

THE ANNALS OF PROBABILITY

Vol. 9	August 1981	No. 4		
Special Invited Paper				
Polymers as self-ave Discussion on P W. Barrett	oiding walks rofessor Freed's paper by Ric	KARL F. FREED hard S. Ellis and Wayne		
Articles				
Characterizing all di Markov functions Some limit theorem cient conditions Circuit processes The multidimension transformations Convergence to a st RAC A converse to the S Transitivity in prob On convergence of the	eorem for Markov chains Iffusions with the 2M-X prop L. C. G. Roc s for percolation processes w J. THEODORE COX A THEODORE COX A THEODORE G. HAHN ABOUL LEPAGE, MICHAEL WOOD DITTER OF THE CONTROL THEODORE COX A THEOD	perty L. C. G. Rogers Gers and J. W. Pitman with necessary and suffiand Richard Durrett J. MacQueen arrays normed by affine and Michael J. Klass atistics DROOFE AND JOEL ZINN PETER HALL ALBRECHT IRLE in a circle and the largest		
Short Communications				
measure Distributional result process An invariance prince L_{∞} -bound for asymp Stein's result A remainder term occupancy Weighted sums overiables Growth of random velociting universal process.	iple for certain dependent see C. M. New totic normality of weakly dep estimate for the normal app of independent identically valks conditioned to stay pos partitions in ergodic theory	YOSHIAKI OKAZAKI nals of a Dirichlet JM, MYLES HOLLANDER NAFTALI A. LANGBERG quences MAN AND A. L. WRIGHT endent summands using HIROSHI TAKAHATA proximation in classical GUNNAR ENGLUND distributed random RALF ULBRICHT itive GRANT A. RITTER ER AND MAURICE RAHE		

CATALOG OF PUBLICATIONS OF THE INSTITUTE OF MATHEMATICAL STATISTICS

ANNALS INDEX

The Annals of Mathematical Statistics, Index to Volumes 1-31, 1930-60, edited by J. Arthur Greenwood, Ingram Olkin and I. Richard Savage, 1962. Nonmember Subscriber Cost—\$15.00, Member Cost—\$10.00

Current Index to Statistics: Applications, Methods and Theory, edited by Brian L. Joiner. Volumes 2-5, 1975-77. Nonmember Subscriber Cost—\$22.00, Member Cost—\$11.00. Volumes 6-7, 1978-79. Nonmember Subscriber Cost—\$26.00, Member Cost—\$13.00

Order directly from Heebok Park, Treasurer, Business Office, 3401 Investment Blvd., Suite 6, Hayward, California 94545.

STATISTICAL RESEARCH MONOGRAPHS

This series is sponsored jointly by the Institute of Mathematical Statistics and the University of Chicago. Discount to members of IMS is 20 percent.

The passage problem for a stationary Markov chain by J. H. B. Kemperman, 1961, 127 pp. OUT OF PRINT.

Statistical inference for Markov processes by Patrick Billingsley, 1961, 75 pp. List price—\$5.50 (Midway Reprint paperback only).

Sequential identification and ranking procedures by Robert E. Bechhofer, Jack Kiefer and Milton Sobel, 1968, xvii + 420 pp. List price—\$20.00.

The analysis of frequency data by Shelby J. Haberman, 1974, 432 pp. List price—\$15.00 (Midway Reprint paperback only).

Order directly from the University of Chicago Press, 11030 S. Langley Ave., Chicago, Illinois 60637.

SELECTED TABLES IN MATHEMATICAL STATISTICS

This series of volumes is prepared by the Committee of Mathematical Tables of the Institute of Mathematical Statistics and is published by the American Mathematical Society for the IMS. Discount to members of IMS is 50%.

Selected tables in mathematical statistics, Vol. I, edited by H. L. Harter and D. B. Owen, 1970, vi + 405 pp. \$13.20.

Selected tables in mathematical statistics, Vol. II, edited by H. L. Harter and D. B. Owen, 1974, viii + 388 pp. \$16.40.

Selected tables in mathematical statistics, Vol. III, edited by H. L. Harter and D. B. Owen with J. M. Davenport, vii + 424 pp. \$21.60.

Selected tables in mathematical statistics, Vol. IV, edited by D. B. Owen and R. E. Odeh with J. M. Davenport, x + 309 pp. \$18.00.

Selected tables in mathematical statistics, Vol. V, edited by D. B. Owen and R. E. Odeh and J. M. Davenport, viii + 263 pp. \$16.80.

Selected tables in mathematical statistics, Vol. VI, edited by W. J. Kennedy and R. E. Odeh with J. M. Davenport, 1980, viii + 207 pp. \$12.80.

Send prepaid orders directly to the American Mathematical Society, P.O. Box 1571, Providence, Rhode Island 02901, Attention: Sales Department.