

THE ANNALS of STATISTICS

*AN OFFICIAL JOURNAL OF
THE INSTITUTE OF MATHEMATICAL STATISTICS*

Memorial Article

William Gemmell Cochran 1909-1980	G. S. WATSON	1
---	--------------	---

Special Invited Paper

A review of selected topics in multivariate probability inequalities	MORRIS L. EATON	11
--	-----------------	----

Articles

Asymptotic lognormality of P -values	DIANE LAMBERT AND W. J. HALL	44
Natural exponential families with quadratic variance functions	CARL N. MORRIS	65
Selecting a minimax estimator of a multivariate normal mean	JAMES O. BERGER	81
Simultaneous estimation of several Poisson parameters under k -normalized squared error loss	KAM-WAH TSUI AND S. JAMES PRESS	93
Piecewise exponential models for survival data with covariates	MICHAEL FRIEDMAN	101
Diagnostic tests for multiple time series models	D. S. POSKITT AND A. R. TREMAYNE	114
The evaluation of certain quadratic forms occurring in autoregressive model fitting	R. J. BHANSALI	121
A central limit theorem for stationary processes and the parameter estimation of linear processes	YUZO HOSOYA AND MASANOBU TANIGUCHI	132
Least squares estimates in stochastic regression models with applications to identification and control of dynamic systems	TZE LEUNG LAI AND CHING ZONG WEI	154
Sequential estimation through estimating equations in the nuisance parameter case	PEDRO E. FERREIRA	167
Contamination distributions	MICHAEL GOLDSTEIN	174
De Finetti's theorem for symmetric location families	DAVID FREEDMAN AND PERSI DIACONIS	184
Confidence intervals for the coverage of low coverage samples	WARREN W. ESTY	190
Nonparametric interval and point prediction using data trimmed by a Grubbs-type outlier rule	RONALD W. BUTLER	197
Qualitative robustness of rank tests	HELMUT RIEDER	205
Estimated sampling distributions: the bootstrap and competitors	RUDOLF BERAN	212
Binary experiments, minimax tests and 2-alternating capacities	TADEUSZ BEDNARSKI	226
On the limiting distribution of and critical values for the multivariate Cramér-Von Mises statistic	DEREK S. COTTERILL AND MIKLÓS CSÖRGÖ	233
Admissibility in linear estimation	LYNN ROY LAMOTTE	245
Maximum likelihood and least squares estimation in linear and affine functional models	C. VILLEGRAS	256
Combining independent noncentral Chi squared or F tests	JOHN I. MARDEN	266
Monotone regression estimates for grouped observations	F. T. WRIGHT	278
Asymptotic distributions of slope-of-greatest-convex-minorant estimators	SUE LEURGANS	287

Short Communications

An inequality comparing sums and maxima with application to Behrens-Fisher type problem	SIDDHARTHA R. DALAL AND PETER FORTINI	297
Bounds on mixtures of distributions arising in order restricted inference	TIM ROBERTSON AND F. T. WRIGHT	302
Invariance principles for recursive residuals	PRANAB KUMAR SEN	307
Covariance stabilizing transformations and a conjecture of Holland	C. C. SONG	313
The consistency of nonlinear regression minimizing the L_1 -norm	WALTER OBERHOFER	316

Notes and Corrections

Correction to "Uniform asymptotic normality of the maximum likelihood estimator"	T. J. SWEETING	320
Correction to "Properties of Student's t and of the Behrens-Fisher solution to the two means problem"	G. K. ROBINSON	321
Correction to "Simultaneous confidence bounds"	CHARLES H. ALEXANDER	321

Vol. 10, No. 1—March 1982

