Aplikace matematiky

Summaries of Papers Appearing in this Issue

Aplikace matematiky, Vol. 20 (1975), No. 5, (388a)

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(These summaries may be reproduced)

LIBUŠE GRYGAROVÁ, Praha: *Über Stabilitätsbereiche bei parametrischen linearen Optimalitätsproblemen.* Apl. mat. 20 (1975), 311—335. (Original-artikel.)

Die Arbeit betrifft eine spezielle Klasse von parametrischen linearen Opti-mierungsproblemen $\min_{x \in \mathfrak{M}(\lambda)} f(x)\}$! mit Parametern in der Koeffizientenmatrix der zugehörigen linearen Restriktionen, die vom Typ $\|a_{r\alpha} + \lambda_r\|$ $(r = 1, ..., m;\ \alpha = 1, ..., n)$ ist. Es handelt sich um eine qualitative Unter-suchung und geeignete Beschreibung des sogenannten Stabilitätsbereiches der Menge der Optimalenlösungen des vorgegebenen Optimierungspro-blems, der einer Auswahl von festen Parameterwerten zugeordnet ist.

ĽUBOR MALINA, Bratislava: *A-stable methods of high order for Volterra inte-gral equations.* Apl. mat. 20 (1975), 336—344. (Original paper.)

Method for numerical solution of Volterra integral equations, based on the O.I.M. methods, is suggested. It is known that the class of O.I.M. methods includes A-stable methods of arbitrary high order of asymptotic accuracy. In part 5, it is proved that these methods generate methods for numerical solution of Volterra equations which are also A-stable and of an arbitrarily high order. There is one advantage of the methods. Namely, they need no matrix inversion in the course of their numerical realization.

VĚRA DUFKOVÁ, FRANTIŠEK ZÍTEK, Praha: *On a class of queue disciplines.* Apl. mat. 20 (1975), 345—358. (Original paper.)

The aim of the paper is to investigate queueing systems of the type $M/M/n$ (in equilibrium) in which customers to be served are selected from the queue: with fixed probabilities either the first customer or the last one is chosen. Using the standard method of generating functions the waiting time distribution and the outtaking probabilities are derived.

MIROSLAV KŘÍŽEK, Plzeň: *On the convergence of modified relaxation method for extremum problems.* Apl. mat. 20 (1975), 359—371. (Original paper.)

In this paper an attempt is made to present a sudfficient general analysis of the convergence of modified relaxation methods for certain nonlinear problems in finite dimensional spaces. Many important results that have already been attained for linear problems are included here as special cases.

DANA VORLÍČKOVÁ, Praha: *Remark on the rank tests in the case of censored samples.* Apl. mat. 20 (1975), 372—377. (Original paper.)

In the paper rank test statistics for testing the hypothesis of randomness are constructed for the case where only some observations are exactly measurable and the other ones are only known to lie in the intervals (y_{j-1}, y_j), $1 \leqq j \leqq k$, $y_0 < ... < y_k$. The observations lying in the same interval are treated as a tie in the case of noncontinuous distribution. The method of randomization and the method of averaged scores are used for the construc-tion of linear statistics. The asymptotic normality of these statistics under the hypothesis and under contiguous alternatives is established.