Aplikace matematiky

Summaries of Papers Appearing in this Issue

Aplikace matematiky, Vol. 16 (1971), No. 4, (318a)–(318b)

Persistent URL: http://dml.cz/dmlcz/103363

SUMMARIES OF PAPERS APPEARING IN THIS ISSUE

(These summaries may be reproduced)

IGOR VAJDA, Praha: *A discrete theory of search I.* Apl. mat. 16 (1971), 241—255. (Original paper.)

In this paper an introduction to the theory of search, as developed in the previous papers of A. Rényi and the author, is given. Basic results of those papers are unified and summarized from a Bayesian point of view which is accepted throughout the paper. Some new results are established and a relation of the theory of search to the information theory is pointed out.

JÁN CHRAPAN, Bratislava: *Weierstrass $\wp$-function.* Apl. mat. 16 (1971), 256—259. (Original paper.)

Weierstrass' $\wp$-functions are considered, their characteristic values as well as the relations between them being shown in two tables.

JÁN CHRAPAN, Bratislava: *Evaluation of the half-periods of the Weierstrass $\wp$-function for the absolute invariant greater than one.* Apl. mat. 16 (1971), 260—264. (Original paper.)

In the paper the expressions available for computation of half-periods of the Weierstrass $\wp$-function, at the absolute invariant higher than number 1, are derived, and calculation is illustrated on two numerical examples.

MILOSLAV FEISTAUER, Praha: *Some cases of numerical solution of differential equations describing the vortex-flow through three-dimensional axially symmetric channels.* Apl. mat. 16 (1971), 265—288. Original paper.)

In the article one partial differential equation of the second order is derived from the system of Euler's equations and the equation of continuity and it is solved by the finite-difference method, which gives good results.

BRUNO BUDINSKÝ, ZDENĚK NOVÁK Praha: *Die Ableitung einer Formel für die Polarabsteckung der Klothoide und die Fehlerveranschlagung.* Apl. mat. 16 (1971), 289—296. (Originalartikel.)

In dem Artikel wird eine, nicht so bekannte, ungefähre Formel, welche für die Polarabsteckung der Klothoide geeignet ist, mittels unendlicher Reihen diskutiert.

KAREL ČULÍK, Praha: *A note on complexity of algorithmic nets without cycles.* Apl. mat. 16 (1971), 297–301. (Original paper.)

The scope width of an algorithmic net without cycles N is the integer $scwi^*(N) = \min_{P \in \boldsymbol{P}(N)} scwi^*(P)$, where $scwi^*(P)$ is a modified scope width of the course P of the net N and $\boldsymbol{P}(N)$ is the set of all courses of N. If T is an algorithmic rooted tree (i.e. a net with one output vertex and without parallel paths) with the root v and if $v_1, v_2, \ldots, v_n$ are all the vertices where start all edges which terminate in v, then we conjecture that $scwi^*(T) = \max_{1 \leq q \leq p} . [scwi^*(T_{s_q}) + s_q - 1]$ where p is the number of different scope widths $scwi^*(T_i)$ and the integers $s_1, s_2, \ldots, s_q = n$ are determined by the following inequalities $scwi^*(T_1) = \ldots = scwi^*(T_{s_1}) > scwi^*(T_{s_1+1}) = \ldots = scwi^*(T_{s_2} > > \ldots > scwi^*(T_{s_{p-1}+1}) = \ldots = scwi^*(T_{s_p})$.