

Werk

Label: Abstract

Jahr: 1979

PURL: https://resolver.sub.uni-goettingen.de/purl?31311157X_0104|log4

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SUMMARIES OF ARTICLES PUBLISHED IN THIS ISSUE

(Publication of these summaries is permitted)

JIRÍ RACHŮNEK, Olomouc: *Quasi-orders of algebras*. Čas. pěst. mat. 104 (1979), 327—337. (Original paper.)

In the paper the set of all quasi-orders on a partial algebra is studied. It is shown that this set ordered by the inclusion is an algebraic lattice and its compact elements are described. In particular, the lattice of all quasi-orders of a group satisfying the monotony law together with the group addition is considered and the constructions of the lattice operations in this lattice are described.

JAROSLAV BARTÁK, JIRÍ NEUSTUPA, Praha: *Замечание к устойчивости решений уравнения колебания стержня*. (Note on stability of a solution of the equation of a beam.) Čas. pěst. mat. 104 (1979), 338—352. (Original paper.)

The exponential stability of a solution of the equation of a beam is examined. The principle of the linearisation is proved with help of the method of Lyapunov's functions. As an example, conditions ensuring the exponential stability of the weakly nonlinear equation are found.

BOHDAN ZELINKA, Liberec: *Embedding trees into clique-bridge-clique graphs*. Čas. pěst. mat. 104 (1979), 353—356. (Original paper.)

The paper studies embeddings of a tree with n vertices into a graph with n vertices which consists of two vertex-disjoint cliques and of a bridge between them.

MILAN TVRDÝ, Praha: *Fredholm-Stieltjes integral equations with linear constraints: duality theory and Green's function*. Čas. pěst. mat. 104 (1979), 357—369. (Original paper.)

This note is devoted mainly to the duality theory for the system $\mathbf{x}(t) - \mathbf{x}(0) - \int_0^t d_s [\mathbf{P}(t, s) - \mathbf{P}(0, s)] \mathbf{x}(s) = \mathbf{f}(t) - \mathbf{f}(0), \int_0^1 d[\mathbf{K}(s)] \mathbf{x}(s) = \mathbf{r}$ where an n -vector valued function $\mathbf{x} : [0, 1] \rightarrow R_n$ of bounded variation on $[0, 1]$ is sought. Results analogous to those given in earlier papers of the author are obtained under less restrictive hypotheses and in a considerably simpler way. Furthermore, existence of the Green function is proved provided the given system possesses a unique solution in BV_n for every $\mathbf{f} \in BV_n$ and $\mathbf{r} \in R_n$.

MIROSLAV SOVA, Praha: *Laplace transform of exponentially Lipschitzian vector-valued functions*. Čas. pěst. mat. 104 (1979), 370—381. (Original paper.)

In this paper characteristic properties of real type for the Laplace transform of exponentially Lipschitzian vector-valued functions are given.