

ON CLASSIFICATION OF GROUP POLYGONOMETRIES

S. V. Sudoplatov

Algebraic, graph-theoretic, and model-theoretic aspects of the problem of classification of group polygonometries are considered. Conditions equivalent to embeddability of a graph with marked arcs into a polygonometry are established. It is proven that, for every infinite cardinality λ , there exist 2^λ pairwise nonisomorphic polygonometries. Automorphism groups of polygonometries of pairs of groups are defined in terms of generating elements and defining relations. The relation between the properties of polygonometries and their automorphism groups is studied. Families of tuples of group elements are defined that determine first-order definable sets and properties of polygonometric theories.

Key words and phrases: polygonometry of groups, graph of a polygonometry, automorphism group, parametrization of formulas and types.

Sudoplatov Sergej Vladimirovich

Novosibirsk State Technical University,
630092 Novosibirsk, Russia.
E-mail: algebra@nstu.ru

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