

Kanivets, V. A.

Algorithmic solvability of comparison problems for finitely ambiguous sequence transducers on superwords. (English. Russian original) [Zbl 0752.68057](#)

Cybernetics 25, No. 2, 132-138 (1989); translation from *Kibernetika* 1989, No. 2, 5-9,19 (1989).

Summary: A method using quasi-identities on a set of words of finite and infinite length is applied to prove algorithmic solvability of the comparison and d -ambiguity problems of finite-automaton asynchronous finitely ambiguous mappings from the set of words of infinite length.

MSC:

[68Q45](#) Formal languages and automata

[20M35](#) Semigroups in automata theory, linguistics, etc.

Keywords:

comparison problems; finitely ambiguous sequence transducers on superwords; algorithmic solvability

Full Text: [DOI](#)

References:

- [1] K. I. ?ulik and J. K. Pahl, ?Equivalence problem for mappings on infinite strings,? *Inf. Control*,49, No. 1, 52?63 (1981). · [Zbl 0472.68045](#) · [doi:10.1016/S0019-9958\(81\)90444-7](#)
- [2] V. N. Red'ko and L. P. Lisovik, ?Regular events in semigroups,? *Probl. Kiber.*, No. 37, 155?184 (1980).
- [3] L. P. Lisovik, ?Rigid sets and finite coverings of a semigroup,? *Kibernetika*, No. 1, 12?16 (1980). · [Zbl 0491.20048](#)
- [4] S. Ginsburg, *Mathematical Theory of Context-Free Languages* [Russian translation], Mir, Moscow (1970). · [Zbl 0195.02301](#)
- [5] A. V. Anisimov and L. P. Lisovik, ?Equivalence problems for finite-automaton mappings into a free and a commutative semigroup,? *Kibernetika*, No. 3, 1?7 (1978). · [Zbl 0388.03015](#)
- [6] J. R. Büchi, ?On a decision method in restricted second order arithmetic,? *Symp. Decision Prob., Sec. I, Math. Logic, Stanford* (1962), pp. 1?11.
- [7] R. McNaughton, ?Testing and generating infinite sequences by a finite automaton,? *Inf Control*, No. 9, 521?530 (1966). · [Zbl 0212.33902](#) · [doi:10.1016/S0019-9958\(66\)80013-X](#)

This reference list is based on information provided by the publisher or from digital mathematics libraries. Its items are heuristically matched to zbMATH identifiers and may contain data conversion errors. It attempts to reflect the references listed in the original paper as accurately as possible without claiming the completeness or perfect precision of the matching.