

- ▶ LEV GLEBSKY, EVGENY GORDON, *About Yu.V. Glebsky's research in discrete dynamical systems.*

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E-mail: gordonevgeny@gmail.com. Yurii Vasil'evich Glebsky (1927 - 1977) is widely known among logicians for the discovery of 0-1 law in the logic of predicates. However, his investigations in discrete dynamical systems practically were not known outside the Soviet Union due to the difficulties of contacts connected with the Iron Curtain. These investigations were inspired by results of Büchi and Elgot on monadic second order theories and their connections with finite automata. Yu.V. considered some extensions of these theories for describing discrete dynamical systems, to which he came from his research in scheduling theory and from some problems concerning asynchronous automata. Shortly before his death Yu.V. dealt with $P = NP$ problem. These investigations were not published and even written in final form. The first author managed to restore them from drafts. They anticipated research on descriptive complexity but, naturally, have some features. For example, for description of the polynomial complexity class Yu.V. uses the first order logic equipped with induction operator. (Now, the first order logic with least fixed point operator is using for this purpose, [1].)

In the authors opinion, the above mentioned results have not lost their interest in the present. The review of these investigations will be presented in the talk.

[1] IMMERMANN, NEIL *Descriptive complexity*, Graduate texts in Computer Science, Springer, 1999.