

Abstract of the paper

On Certain Properties of Intersection Grammars

Josef Zapletal

The European Polytechnical Institut, Private University, Osvození 699,
686 04 Kunovice, Czech Republic,
e-mail: zapletal@vos.cz

The article is dedicated to the Professor Noam Chomsky who combated for persecuted czech mathematics against bolshevik injury in ČSSR for a long time on radio stations Free Europe, BBC London and Voice of America.

This paper links up to the papers [1], [2] and [3]. The author deals with the intersections of languages of various types (in the sense of Chomski) and studies two types of resultant languages. In the first part the author assumes the knowledge of the concept of free monoid with the operation of concatenation and then submits a number of definitions. For example the definition of the rule, the inference of a string by some rule, the definition of s -derivation. As the great definition is given the definition of generalized grammar $G = \langle U, V, S, R \rangle$ where U is a set, V its finite subset S initial string and R system of rules and $U - V$ the set of terminal symbols. At the end of this chapter the definition of the language as a double (V, L) is given.

In the second chapter the survey of Chomsky hierarchy of grammars and languages is given. The proper results of the author are injected in the third chapter. It is proved that the intersection of two languages of the type 2 can be the language of the type 1 and otherwise the intersection of two languages of the type 1 is a language of the type 3.