Grammars controlled by petri nets with inhibitor arcs.

Abstract

A Petri net controlled grammar is a grammar equipped with a Petri net whose transitions are labeled with production rules of the grammar, and the associated language consists of all terminal strings which can be derived in the grammar and the sequence of rules in every terminal derivation corresponds to some occurrence sequence of transitions of the Petri net which is enabled at the initial marking and finished at a final marking of the net. In this paper we define grammars controlled by Petri nets with inhibitor arcs and investigate their computational capacities.