

ГОДИШНИК НА СОФИЙСКИЯ УНИВЕРСИТЕТ „СВ. КЛИМЕНТ ОХРИДСКИ“

ФАКУЛТЕТ ПО МАТЕМАТИКА И ИНФОРМАТИКА

Том 95, 2001

ANNUAIRE DE L'UNIVERSITE DE SOFIA „ST. KLIMENT OHRIDSKI“

FACULTE DE MATHÉMATIQUES ET INFORMATIQUE

Tome 95, 2001

A SEMANTICS OF LOGIC PROGRAMS WITH PARAMETERS

VESELA BALEVA

A generalized version of the declarative semantics of Horn clause programs on abstract structures with parameters is presented. The parameters are subsets of the domain of the structure. They are treated as effectively enumerable sets. The main feature of the semantics is that it does not admit searching in the domain of the structure. The obtained programming language is closed under recursion and has the greatest expressive power among the languages satisfying certain natural model-theoretic properties. It is shown that the obtained notion of computability is transitive.

Keywords: semantics, logic programming, parameters, abstract structures

2000 MSC: 03D75, 68Q05, 68Q55

Received on March 1, 2002

Faculty of Mathematics and Informatics
“St. Kl. Ohridski” University of Sofia
5, J. Bourchier blvd., 1164 Sofia
BULGARIA
E-mail: vbaleva@fmi.uni-sofia.bg