Application of Methods for Syntax Analysis of Context-Free Languages to Query Evaluation of Logic Programs

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Abstract

My research goal is to employ a parser generation algorithm based on the Earley parsing algorithm to the evaluation and compilation of queries to logic programs, especially to deductive databases. By means of partial deduction, from a query to a logic program a parameterized automaton is to be generated that models the evaluation of this query. This automaton can be compiled to executable code; thus we expect a speedup in runtime of query evaluation.

KEYWORDS: Deductive Databases, Earley Deduction, Partial Deduction

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