### 短文

## 一阶逻辑知识库的检测

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缩更

本文提出的方法是以Loveland的MESON一阶逻辑定理证明过程为基础,用于一阶逻辑规则知识库的冗余性和不一致性的检测.知识库的规则可包含非真、或及if-and-only-if规则.系统以交互形式从正、反向推理研究知识库规则增加时的变化.

关键词 人工智能 知识库 一阶逻辑 定理证明

分类号

# **Debugging for a First Order Logic Knowledge Base**

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#### Abstract

The method described in this paper is based on Loveland's MESON proof procedure of debugging a knowledge base (kb) of full first order logical rules, including true negation, disjunction, and if-and-only-if rules. It is used to query the kb and to detect redundancies and inconsistencies. Explanations are provided for each contradiction and redundancy found. Both backward and forward chainning capabilities of the system make it possible to investigate the consequences of new additions to the kb.

Key words Aritficial intelligence knowledge base first order logic theorem proving

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