

数据库、信号与信息处理

基于分辨矩阵和约简树的增量式属性约简算法

侯枫, 刘丰年

三门峡职业技术学院 信息工程系, 河南 三门峡 472000

收稿日期 2008-10-10 修回日期 2008-12-23 网络版发布日期 2010-4-11 接受日期

摘要 为了对动态变化的决策表进行高效属性约简处理, 在改进的分辨矩阵的基础上提出一种基于约简树的增量式属性约简算法IRART, 该算法首先根据序贯属性约简算法对原决策表构造约简树, 然后求出新增对象的分辨向量, 并利用此向量对约简树进行修整, 从而快速得到新决策表的所有约简, 最后通过示例证明了这种算法的有效性。与传统增量式属性约简算法相比, 该算法避免了复杂的逻辑演算, 提高了属性约简的更新效率, 理论分析表明该算法是有效可行的。

关键词 [粗糙集](#) [分辨矩阵](#) [增量式](#) [约简树](#)

分类号 [TP311](#)

Incremental algorithms for attribute reduction based on discernibility matrix and reduction tree

HOU Feng, LIU Feng-nian

Information Engineering Department, Sanmenxia Polytechnic, Sanmenxia, Henan 472000, China

Abstract

For the efficient attribute reduction of dynamic decision table, the incremental algorithm for attribute reduction based on discernibility matrix and reduction tree is proposed. This method builds reduction tree according to sequential attribute reduction algorithm, calculates discernibility vector of new object, and revises reduction tree according to discernibility vector. Thereby attribute reduction cluster of new decision table can be obtained quickly, finally the validity of the algorithm is proved by examples. Compared with the traditional algorithm, this algorithm avoids complex logical calculus and improves the updating efficiency of attribute reduction. Theoretical analysis shows that the algorithm of this paper is efficient and feasible.

Key words [rough sets](#) [discernibility matrix](#) [incremental](#) [reduction tree](#)

DOI: 10.3778/j.issn.1002-8331.2010.11.038

通讯作者 侯枫 liufengnian88@126.com

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(573KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中 包含“粗糙集”的相关文章](#)
- ▶ [本文作者相关文章](#)

- [侯枫](#)
- [刘丰年](#)