#### 数据库与信息处理

# 基于不同蕴涵算子的模糊概念格建格算法研究

刘瑞新<sup>1</sup>,孙士保<sup>2,3</sup>,秦克云<sup>2</sup>

- 1.黄河水利职业技术学院 信息工程系,河南 开封 475000
- 2.西南交通大学 智能控制开发中心,成都 610031
- 3.河南科技大学 电子信息工程学院,河南 洛阳 471003

收稿日期 修回日期 网络版发布日期 2007-5-28 接受日期

摘要 概念格是进行数据分析的有力工具,模糊集是数据处理的有效方法之一,模糊概念格有重要的理论与应用价值,但它的结构与性质依赖于蕴涵算子的选择,基于此,介绍了基于下半连续三角模生成的剩余蕴涵以及模糊概念格的算子和定义,提出了基于不同蕴涵算子的模糊概念格的实现算法,分析了算法的复杂度等性能,最后通过实例说明了基于Godel 蕴涵和Lukasiewicz 蕴涵的模糊概念格的建格方法。

关键词 概念格 模糊概念格 蕴涵算子 算法研究 分类号

# Research on implementation algorithm of fuzzy concept lattices based on different implication operator

LIU Rui-xin<sup>1</sup>, SUN Shi-bao<sup>2,3</sup>, OIN Ke-yun<sup>2</sup>

- 1.Department of Information Engineering, Yellow River Conservancy Technical Institute, Kaifeng, Henan 475000, China
- 2.Intelligent Control Development Center, Southwest Jiaotong University, Chengdu 610031, China 3.Electronic Information Engineering College, Henan University of Science and Technology, Luoyang, Henan 471003, China

#### Abstract

The concept lattice is an efficient tool for analyzing dada and the fuzzy set is an efficient approach of data processing, so fuzzy concept lattice has important theoretical and practical application value. But the structure and properties of fuzzy concept lattice depend on the choice of implication operator, thus residuated implication operator which is generated by lower semi-continuous triangular norm and the operator and definitions of fuzzy concept lattice are discussed. The constructing algorithm of fuzzy concept lattices based on different residuated implication operator is proposed. The performances of this algorithm like complexity are analyzed. Finally, constructing methods of fuzzy concept lattices based on Godel implication and Lukasiewicz implication are illustrated through examples.

Key words concept lattice fuzzy concept lattice implication operator algorithm research

DOI:

## 扩展功能

### 本文信息

- ▶ Supporting info
- ▶ PDF(803KB)
- ▶[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

▶ <u>本刊中 包含"概念格"的</u> 相关文章

▶本文作者相关文章

- · 刘瑞新
- 孙士保
- 秦克云