

机器学习

## 复杂系统因果图合成建模方法研究

梁新元<sup>1,2</sup>, 石庆喜<sup>2</sup>

1.重庆大学 计算机学院, 重庆 400030

2.重庆工商大学 计算机科学与信息工程学院, 重庆 400067

收稿日期 2008-4-30 修回日期 2008-6-12 网络版发布日期 2008-7-17 接受日期

**摘要** 因果图应用中, 专家首先要建立复杂系统的因果图模型。但是复杂系统因果图模型非常复杂, 专家直接构造非常困难。因此如何使构造的因果图能更真实地反映实际, 减少偏差, 是值得研究的问题。针对复杂系统建模困难, 提出了复杂因果图的合成方法, 可以对同一专家构造的因果图以及不同专家构造的因果图分别采用不同的方法进行合成。并通过实例进行了说明。研究表明: 复杂系统因果图合成建模法可行有效, 简化了因果图的建模方法, 为因果图处理专家知识提供了一条有效的途径。

**关键词** [因果图](#) [复杂系统](#) [合成](#) [建模](#) [专家](#) [标准化](#)

分类号

## Composing modeling method for causality diagram of complex system

LIANG Xin-yuan<sup>1,2</sup>, SHI Qing-xi<sup>2</sup>

1.College of Computer Science, Chongqing University, Chongqing 400030, China

2.College of Computer Science, Chongqing Technology and Business University, Chongqing 400067, China

### Abstract

Expert should firstly construct the model of CD in application. It is necessary to construct the model of CD (MCD) of CS. However, it is difficult to directly construct. It is valuable to study how to make a constructed MCD really reflect fact and reduce difference. To overcome the difficulty of the modeling of CDCS, a composing method for CCD is advised and verified by an example in this paper. This method can synthesize causality diagrams constructed by the same expert or by different experts respectively through multifold methods. The research shows that the composing modeling method for CD of CS is so feasible and effective that it simplifies the modeling of CD and offers an effective approach to tackling expert knowledge with CD.

**Key words** [Causality Diagram \(CD\)](#) [Complex System \(CS\)](#) [composing](#) [model](#) [expert](#) [standardization](#)

DOI: 10.3778/j.issn.1002-8331.2008.21.049

通讯作者 梁新元 [lxy@swsc.com.cn](mailto:lxy@swsc.com.cn)

### 扩展功能

#### 本文信息

▶ [Supporting info](#)

▶ [PDF\(827KB\)](#)

▶ [\[HTML全文\]\(0KB\)](#)

▶ [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“因果图”的 相关文章](#)

▶ [本文作者相关文章](#)

· [梁新元](#)

·

· [石庆喜](#)