

博士论坛

## 基于粗集的产品色彩预测系统研究

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**摘要** 针对传统人工预测流行色方法效率低、费用高的问题, 采用决策表知识表达技术和模糊集合方法构建了流行色知识仓库, 结合可辨识矩阵理论和粗集理论提出流行色预测知识挖掘算法, 该算法可根据流行色知识库建立条件属性和决策属性依赖关系, 从而完成流行色的预测推理。开发了基于粗集理论的智能化流行色预测系统, 并以服装产品为例预测流行色, 结果表明该系统可准确预测未来短期内的流行色。

**关键词** [流行色](#) [预测系统](#) [粗集理论](#) [知识挖掘](#)

分类号

## Rough set based forecasting system for product color

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### Abstract

Conventional artificial forecast methods of fashion-color are inefficient and wasteful. To tackle this issue, a forecasting system for product fashion color based on rough set theory is constructed in this paper. Firstly, a product fashion-color knowledge database is built based on decision table and fuzzy set methods. Then a knowledge discovering algorithm of forecasting fashion color is presented with rough set theory and differentiability matrix theory. With the algorithm, the dependent relations between condition attributes and decision attribute based on fashion-color knowledge database can be built. Finally, an intelligent fashion color forecasting system is developed, and a forecast case of clothes fashion color is implemented. The results show that this system can forecast fashion color in short term.

**Key words** [fashion-color](#) [forecasting system](#) [rough set](#) [knowledge discovery](#)

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