

论文

基于综合云的不确定语言多准则群决策方法

王坚强, 刘洵

摘要:

针对准则权重已知、决策者权重未知、准则值为不确定语言的多准则群决策问题,提出一种基于云模型的决策方法.该方法首先将不确定语言值转化为综合云;然后采用生成浮动云的方法进行偏好集结,并通过计算“不确定度”和“决策者偏差度”求得决策者权重;最后引入Hamming距离求得贴近度大小,通过比较得到方案集的排序.实例分析表明了该方法的有效性和可行性.

关键词: 群决策; 不确定语言值; 综合云; 不确定度

Uncertain linguistic multi-criteria group decision-making approach based on integrated cloud

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Abstract:

A decision-making method based on cloud model is proposed to solve the multi-criteria group decision-making problems, in which the criteria weights are given, decision-makers' weights are unknown and the criteria values are uncertain linguistic. Firstly, by converting uncertain linguistic values into interval integrated cloud, the preference aggregation is got by means of floating cloud. Then the decision-makers' weight is gotten by calculating the "uncertainty" and the "deviation degrees of decision-makers", and the closeness degree is obtained by introducing the Hamming distance. And the ranking of alternatives is listed by comparing the closeness degree obtained by introduced the Hamming distance. Finally, an illustrative example analysis shows the effectiveness and feasibility of this approach.

Keywords: group decision-making; interval linguistic; integrated cloud; uncertainty

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