点击复制

基于灰色聚类的区域地质灾害危险性分区评价 (PDF)

工具/TOOLS

引用本文的文章/References

下载 PDF/Download PDF(997KB)

立即打印本文/Print Now

推荐给朋友/Recommend

RSS XML

Title:	Grey clustering method-based zoning assessment of regional geological disaster

作者:	张丽; 李广杰; 周志广; 汪茜
	吉林大学建设工程学院, 吉林 长春 130026
Author(s):	ZHANG Li; LI Guang-jie; ZHOU Zhi-guang; WANG Qian
	College of construction Engineering, Jilin University, Changchun 130026, China

关键词:	地质灾害; 危险性评价; 灰色聚类; 区划
Keywords:	geological disaster; hazard assessment; grey clustering; zoning
分类号:	P694
DOI:	-
文献标识码:	-

摘要: 区域地质灾害危险性评价是灾害学研究的一项重要内容,并正在向定量化、综合化、科学化发展,但是由于它所涉及的因子较多,且许多因素具有很大的不确定性,所以迄今为止仍有不少需要探索的问题.可以认为,地质环境系统是灰色系统,这就是分类决策聚类问题.以吉林省磐石市为例,将灰色聚类法应用到区域地质灾害危险性评价中,确定了影响地质灾害危险性的主要地质环境因素,建立了区域地质灾害危险性评估的数学模型,计算得到的危险程度数值,反映了磐石市地质灾害的危险程度.根据评价结果,按地质灾害危险性程度将磐石市划分为4个区,经与磐石市地质灾害发育的实际情况进行对比,结果表明文中所提方法的分析结果是可靠的.

Abstract: Regional geological hazard assessment is very important in the study of hazards,and faces on quantitative,comprehensive and scientific development tendency.But it is still a problem that many people are searching and has not settled because it involves too many factors and some of them are uncertain.While geological environment can be considered as grey system,then it becomes classifying and decision-making problem.This article applies grey clustering method to the hazard assessment of regional geological disaster in Panshi City,determines primary geological environment important factors and establishes mathematical model to assess the risk of geological disaster.On the whole,the assessment results coincide with the actual situation.A ccording to the results Panshi City is divided into four regions with different risk degrees.Through comparing the result with the practical situation,it indicates that the grey clustering method is reliable.

参考文献/REFERENCES

[1] 张丽.区域地质灾害危险性评价的定量化研究:吉林大学硕士论文[D].长春:吉林大学,2006:1-4.

[2] 李林.基于地理信息系统的区域地质灾害危险性评价:西北大学硕士论文[D].西安:西北大学,2000:2-5.

[3] 段永侯.中国地质灾害[M].北京:中国建筑工业出版社,1993.

[4] 邓聚龙.灰色聚类基本方法[M].武昌:华中理工大学出版社,1987.

[5] 刘思峰,郭天榜,党耀国.灰色系统理论及其应用[M].北京:科学出版社,1999.

[6] 张梁,张业成.地质灾害灾情评估理论与实践[M].北京:地质出版社,1998.

[7] 陈奇,李智毅,石怀伦.区域地质灾害危险性评价的思路与基本方法[J].地质力学学报,2004,10(1):71-80.

[8] 陈情来.模糊综合评判地质灾害的危险性[J].油气储运,2000,19(5):38-43.