

Flood Disaster Loss Evaluation Model Based on Projection Pursuit

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Abstract :

In order to resolve the non-uniformity problem of evaluation results of disaster loss indexes, and to raise the evaluation result precision of flood disaster loss, a projection pursuit (PP) based flood disaster loss model is suggested, where the results of flood disaster loss evaluation are real numbers. A scheme of PP modeling is also presented to reduce the computational amount, and a new function of projection indexes is given. It is suggested that both the function of projection indexes and the parameters of PP model can be optimized by using a real coding based genetic algorithm. The calculation example shows that the model is effective and general, which can be applied to evaluating other natural disaster loss. [Nature and Science 2003;1(1):82-85].

Key Word :

flood disaster loss; evaluation; projection pursuit (PP); genetic algorithm

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