

近年来,数学领域,随着理论知识的飞速发展,对实践动手能力的要求也越来越高。数学建模竞赛便为此提供了一个很好的平台,也吸引了越来越多的人关心和参与。但其公平性都备受关注。本系统就给出了一种简单易行的方法:利用矩阵作积和求逆对试卷编号进行加密、解密,保证了良好的通用性和保密性;通过构造一个特定矩阵的方法及 0—1 规划原理对答卷评阅进行分配;给出了评定公平性的检验方法和最终的分数调整计算公式,即通过算术平均值的计算,检验残余误差大小是否在规定的范围内,并以此来确定最终的分数计算公式,尽可能地处理了那些可能出现的“不公平”及“尺度偏差”问题。上述模型是通过矩阵算法理论、误差分析以及数学软件 MATLAB 来实现的,有良好的可操作性,可推广到其他类似竞赛的评卷系统中去。

Recently,in mathematics` area,with the theory knowledge`s astonishing advancement,it has become more and more important for our practice ability. Mathematics modering competition offers us a good place for improving our mathematics`ability.This system may give you a simple and feasible mean :use the Matrix to multiply and find the inverse Matrix in order to encrypt the test paper`s number and decipher it.In this way ,we can keep the universality and privacy protection well.Use this mean and the 0-1 linear programming to assign the paper and give the way to examine the fair and the formula of the mark adjustment,then get the arithmetical mean and judge whether the residual error is within the given bounds,so as to get the formula which is used to get the last mark and get rid of that unfairs.All above is based on Matrix algorithm theory,error analysis and how to accomplish it with the help of the MATLAB.It is easy to operate and can be used in other competition system.