

## Discarding or Correcting Outlier Scores vs. Excluding Outlier Jurors to Reduce Manipulation in Classical Music Competitions.

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**Abstract :** This paper, written by an economist and pianist, aims to compare and analyze different methods of reducing manipulation in classical music competitions by focusing on outlier scores and outlier jurors. We first examine existing methods in competition practice and statistical literature for discarding or correcting jurors' scores that deviate significantly from the mean or median of all scores. We then introduce a method that involves eliminating all scores of outlier jurors, i.e., those jurors whose ratings significantly differ from those of other jurors. The properties of these standard and proposed methods are discussed in hypothetical voting scenarios, where one or more jurors assign scores that deviate considerably from the scores awarded by other jurors. Finally, we present examples of applying various methods to real-world data from piano competitions, demonstrating the potential effectiveness and implications of each approach in reducing manipulation within these events.

**Keywords :** voting systems, manipulation, outlier scores, outlier jurors

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