## Combating jurors' biases and manipulations in classical music competitions

"Classical music competitions are rife with corruption and bribery, both in Britain and abroad. Everyone knows it, but no one says it, because, when you're in the profession, you don't," Julian Lloyd Weber, the cellist, conductor, and brother of musical composer and impresario Andrew Llovd Webber, once said. Whether or not competitions are rife with corruption or just moderately despoiled, manipulation is a proven problem that has as yet not been eradicated from the competition platform. With top prizes at many music competitions now offering cash awards in excess of \$100,000, concert tours worth many times that much, recording contracts, and the possibility of signing up with a major music management, it is not surprising to hear of attempts by some competitors to bribe jurors or induce them in some other way to score them more favorably. At the 1990 Tchaikovsky Competition in Moscow, James Gibb, a British juror, was offered a bribe by a contestant's parent, a bribe which was rejected and subsequently led to the expulsion of that competitor. Another contestant at the same competition offered to donate a Steinway concert grand (currently valued at over \$200,000) to the Moscow Conservatory, an institution where a portion of the jury was employed. At the 2016 International Wieniawski Violin Competition, two groups of jurors favoring two different candidates formed: one candidate received the highest scores from one group and nearly minimal scores from the other, while the situation was reversed for the second candidate. In a famous scandal during the 1980 International Chopin Piano Competition, a small cohort of jurors scored the controversial pianist Ivo Pogorelich with extremely low scores. Martha Argerich resigned from the jury in protest when he did not pass to the final round. At the 2010 International Chopin Competition, a juror, Fou Tsong, failed to disclose his teaching relationship with the competition winner, Yulianna Avdeeva, as was required by competition rules. Such incidents not only tarnish the credibility of a competition but deteriorate the trust competitions have garnered for generations from arts presenters and concert goers.

This project is a continuation of the work carried out under the NCN grant titled 'Specific tastes or cliques of jurors? Designing scoring and voting systems resistant to manipulation.' (2018/31/B/HS4/01005). Its outcome was the creation of an innovative voting system called 'Excluding Outlier Jurors' (EOJ), primarily designed for use in classical music competitions. Unlike other voting systems used in competition practice, which analyze the scores received by individual candidates and apply corrective measures such as correcting or discarding outlier scores, the EOJ method focuses on analyzing the scores provided by individual jurors and identifying those jurors who significantly deviate from the consensus of the entire jury. All votes from such outlier jurors are discarded and not considered when calculating the final results. The EOJ system has been described in several publications. The system's final version was detailed in "Identifying outlier scores and outlier jurors to reduce manipulation in classical music competitions" by Kontek and Kenner, published in November 2023 in the Journal of Cultural Economics (the second author of the article is a laureate of the second prize at the 1990 International Chopin Piano Competition in Warsaw). The EOJ system was officially adopted in the International Karol Szymanowski Competition, held in Katowice in September 2023, across four categories: piano, violin, vocal, and string quartet. As of the preparation of this application, discussions are underway to implement the EOJ system in the International Chopin Piano Competition in Warsaw, scheduled for autumn 2025. The rapid adoption of the EOJ system in music competitions worldwide indicates a tremendous demand for such anti-manipulation solutions and the significant advantages of the proposed system. Based on the experiences from competitions where the EOJ method was implemented and feedback from journal reviewers, further theoretical and experimental research is necessary on issues related to the EOJ method as well as other voting systems used in competition practices. The research aims to achieve several objectives: a). Developing methods to mitigate selected biases that affect jurors during the evaluation of candidates. b). Developing a method to detect juror coalitions and limit their vote influence on the final jury decision. c). Enhancing the techniques for identifying manipulative jurors while reducing the likelihood of false indications. d). Developing complementary competition rules to prevent unfair results.

Apart from the theoretical implications, the systems and methods proposed in the grant application will serve to conduct fair and trustworthy competitions, not only in music (or art generally), but in many other areas, e.g. elections in educational institutions or professional and technical societies, sports awards, some political elections, and in decisions regarding the financing of proposals.