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Jack A. Ryan* (jryan23@vols.utk.edu). *Betting Better on Broadway: the Application of Statistical Matrix Theory to the Prediction of the Tony Awards for Best Play and Best Musical.*

In this work, we employ methods previously used to rank sports teams to analyze particular quantifiers pertaining to art. The research uses statistical principles and matrix theory to predict which show will win a Tony Award in a given season. Using weekly statistics including weekly gross profit, percentage of seats sold, average ticket price, top ticket price, and number of seats sold, we rank Tony Award nominees from the past ten years using two algorithms: the Colley and Massey methods. The method and quantifier combination that most often successfully yields accurate results is used to predict the winners of the 2016 Tony Awards for Best Play and Best Musical. (Received September 08, 2016)