

This thesis deals with various approaches to modeling darts matches. We compare rating models, models based on statistics and a model that views the game states and random transitions between them as a Markov chain. As a part of the thesis, we propose a method for calculating statistics reflecting both long-term and short-term form of the players. Using a detailed dataset containing individual darts, we also derive how to choose a target based on the state of the match. The models are evaluated according to standard criteria for classification problems, but in addition, using bookmakers' odds, we estimate the profitability if betting would take place in practice according to the models' predictions.