Tennis Match Outcome Predictor

Predict Winner of Tennis Match While It Progresses

This invention gives the best estimate of the outcome of a tennis match as it progresses. It is intuitively obvious that a player has better chances to win the match when he/she has a match point in contrast to the case when the score is 0:0. It is possible to compute the exact probability of winning the match by either side at any score in the match. Columbia’s method takes into account the current match score (in terms of set score, game score and point score) and the probability of winning a single rally by each player (a quantity which could be estimated from historical data and from the ongoing match). By taking into account all possible future outcomes of the match score properly weighted by the corresponding probability, our method determines which proportion of these scenarios result in win of one or the other side. With every possible score of the tennis match, we have computed the explicit formula for the probability of winning the match (or winning the set, game, tiebreak as a special case). Because of the complexity of the formulae and some variations in tennis rules (like the rule of when to play the tiebreak), it has to be evaluated by a computer program. The tennis match outcome predictor will help to identify critical moments of the match and the relative weight of every point played. Points played during the match have quite different impact on the winning chances and my invention helps to determine exactly how important each ball is. Moreover, it would be possible to spot trends or critical points in the match and give another tool to evaluate the players’ performance.

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