

Mchess rating

The Mchess rating system is a numerical system in which the results of games convert to rating difference. It's function is to produce scientific measurement information of the best statistical quality

Mchess rating system is the modified ELO rating system with three important difference

- The penalty if player had no plays more then 30 days
- Different weights for different tournaments
- The scale of Mchess rating is approximately 10*FIDE rating

Determining The Rating change for a player

R_h and R_l are rating of two players

$$R_h \geq R_l$$

S is the numeric result of the game

S=1 if the player with rating R_l win

S=0 if the player with rating R_l lose

S=0.5 if drawn game

The probability of player with R_l rating win is

$$LRP = 1 / (2 + (R_h - R_l)^2 / 10^6)$$

The new ratings of the players

$$R_{hnew} = R_h - W * (S - LRP)$$

$$R_{lnew} = R_l + W * (S - LRP)$$

W – is the weight coefficient depending of tournament level

If the new Rating is not integer it is rounded to the nearest integer

If R_{hnew} or $R_{lnew} < 0$ it become 0

Penalty for non - players

At 00:01GMT at 1th day of each month Mchess system chek the player status/ If ht player play no games mor than 30 days before this time it's new Rating

$$R_{new} = R - R^2 / (1.44 * 10^6)$$

If $R_{\text{new}} < 0$ it become 0

Initial Rating

At the first registration in Mchess system initial Rating = 0 assign to the player. If the player have rating R in the FIDE Rating List (FRL) initial Rating = $10 * R$ (FIDE Rating) assign to the player (To do this the player must send application to Mchess Administration)

Games with Mchess computers software.

If the player play with Mchess computer software the new Rating determining under the same rule.

Initial Rating of computer opponent assign 1000.

If new Rating higher then 20 000 it assign 20 000

W-coefficient

W coefficient depend of the level of tournament and assign by Mchess Administrations.

For regular game in Mchess system $W=250$.

For top level tournaments it's recommended $W=500$