

1.1 - The modified OM+ Elo formula:

$$P = P_{\text{before}} + I * (W - We')$$

- **P**: points after the match;
- **W**: results of the match (1 = win; 0.5 = draw; 0 = defeat).
- **P_{before}**: points of the team before the match;
- **I**: importance of the match (values are listed below);
- **We'**: altered win expectancy ($1 / (10^{-(dr'/400 + 1)})$)

$$dr' = P_{\text{before of Team A}} - P_{\text{before of Team B}} + G$$

- **P_{before of Team A} - P_{before of Team B}**: difference in rating between the two teams involved, before the match;
- **G**: Goal difference. $G = 0$ when a game is won by one goal, or when the result is a draw. If the game is won by more than one goal, G is increased by adding $\pm 100 * NG$, where NG is the number of the goals exceeding 1 (the value is negative for the losing team, positive for the winner);
I do not use the adjustment for the home advantage, since I have seen in my simulations that is irrelevant in the long terms.

The altered win expectancy (dr') contains the trick used to include the weight of the goal difference. If the difference in goals between the two teams becomes greater, the difference in rating is artificially reduced in the manner the result will cause a greater exchange of the points. This method works differently and better respect the method used by the site elratings.net. With my method the exchange of points cannot be, under any circumstances, greater than the constant used for the importance of the match (exactly like the original formula developed by Arpad Elo). This will ensure that unusual (occasional) results cannot have an impact too great to the ranking, contrary to the method used by elratings.net (that works by increasing the I constant).

An example should clarify:

assumption: team A has 1600 points, team B has 800 points, constant of the match 50;

case 1: Team B beats team A with the score 4:0 (unusual result)

points exchanged (elratings.net): $\pm 92,822$;

points exchanged (OM+): $\pm 49,911$;

case 2: team A beats team B with the score 7:0

points exchanged (elratings.net): $\pm 1,114$;

points exchanged (OM+): $\pm 12,013$;

The example using my method shown that an unusual and occasional result cannot move a number of points too great (deviance from the real strenght of the team not too great for a single match). In addition, a team that beat a weaker team is most awarded for a great goal difference.

1.2 - Competitions and importance of the match (I) (constant applied from January 1, 2024):

FIFA WORLD CUP

90 for final matches, semi-final matches and quarter finals matches

85 for group stage matches and round of 16 matches

60 for the third-place match

60 for matches in the qualifiers

UEFA EURO, CONMEBOL COPA AMERICA, CONCACAF GOLD CUP, CAF AFRICA CUP OF NATIONS, AFC ASIAN CUP, OFC NATIONS CUP

75 for final matches, semi-final matches and quarter finals matches

70 for group stage matches and round of 16 matches

55 for the third-place match

55 for matches in the qualifiers.

UEFA NATIONS LEAGUE

Finals:

60 final match and semi-finals matches

50 for the third-place match

League stage:

50 for the league stage matches

CONCACAF NATIONS LEAGUE

Finals:

60 final match and semi-finals matches

55 for quarter finals matches

50 for the third-place match

League stage:

55 for the league stage matches (**leagues with direct qualification places for the Gold Cup**)

50 for the league stage matches (**leagues without direct qualification places for the Gold Cup**)

UEFA/CONMEBOL Finalissima

60 final match

FRIENDLIES

25 - Friendlies and Friendly tournaments inside the international match calendar windows;

20 - Friendlies and Friendly tournaments outside the international match calendar windows;

Double validity: if a match is valid for two competitions, the greater value is applied.

2.1 - Rule for matches ended at extra-times or penalty shoot-out: this is applied only when the game is played in a single-leg: **W=0,75 for the winner, 0,25 for the loser**. In such cases **G = 0**. In two-legged games, only the results achieved after the regular times must be considered.

2.2 - Results taken into account

In the calculation, all the games are included between senior national teams full members of one of the six continental confederations (UEFA, CONMEBOL, CONCACAF, CAF, AFC, OFC). In general, are excluded from the ranking all the unaffiliated representatives that are inactives for many years and for which the nationality of the players is not verified by a superior governance. Only the games between teams labelled as "A" selection by the respective national FA are included in the calculation..

2.3 - Awarded results

As general principle, the results achieved on the pitch will be used for the ranking, and awarded results will be not taken into account.

2.4 - Inclusion of new nations (rookie teams):

A new associated national team will enter for the first time in the ranking **with the points of the last ranked team in the same confederation**. A team that has played less than 10 match from the first entry, is marked as "rookie" team. The "rookie" teams are identified in the ranking list with the number of games played showed in parenthesis next to the name. When a match involves a "rookie" team, a special rule is

applied for the constant K, since the rating of the "rookie" team is considered not yet realistic. For each one of the first ten games played, the rookie team will receive the maximum K constant (90) irrespective of the category of the match. The opponents will receive the minimum constant (20). In the particular case that two rookie teams are involved in the same match, the constant 55 will be used for both the teams. The normal calculation will start as soon as the team has played the tenth match.

2.5 - Penalisations for inactivity

Contrary to other points-exchange systems (like eloratings.net), **a national team inactive doesn't preserve its rating indefinitely**. The ranking indeed should represent the actual strenght of each team (or get as close as possible to it), but it is impossible to know the actual strenght of a team inactive from a long time, because of the lack of the necessary comparison parameters, that are the games. Furthermore, a team inactive has no results at all, so it makes sense if it lose positions respect teams that had recently obtained results.

For these reasons, we will apply penalisations to national teams not reaching the **required minimum of 4 international games played per year** (the period considered is from 1 january to 31 december). The following penalisations will be applied:

- **3 games played: -12,5 points;**
- **2 games played: -25 points;**
- **1 game played: -37,5 points;**
- **0 games played: -50 points;**

The penalisations will be applied once at the end of each year. **The rating of the last ranked team is the minimum limit for the penalizations**. As a consequence, the team already in the last position cannot be penalized at all, and the the distance in points between the first ranked team and the last ranked team will remain unchanged.