



Affiliated to the International Table Tennis Federation & the European Table Tennis Union

# A Guide to The Ranking System Updated July 2016

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# Introduction

Table Tennis Scotland's new Ranking System for the 2015/16 season and beyond.

The new computer rating system was developed by Table Tennis 365 and builds on the principles of our old system, whilst addressing the known limitations. Our new system has a number of major improvements which have led to more accurate, faster and fairer ratings for all.

Major changes in the new system are:

- We now operate on a single fixed season of 1<sup>st</sup> August to 31<sup>st</sup> July.
- Results will be input when they are received, which can be several weeks after a tournament, but the system will then apply the results to the date of the tournament and re-calculate results since then to provide more accurate ratings.
- Improvements have been made to decrease the amount of time it takes to achieve a new rating and appear on the lists.
- Input errors, when corrected, are recalculated from the date of the tournament, leading to more accurate ratings for all.

This guide aims to cover how the principles of the Ranking Scheme work in a manner suitable for the experienced and novice alike.

Should you have any questions unanswered by this guide, please contact us at Table Tennis Scotland and we will endeavour to answer them for you.

## The Principles of the Ranking System

The Table Tennis Scotland Ranking Scheme was born from the need for some system of determining the relative standards of our players. **Above all else, the system needed to be fair and based on objective criteria rather than on someone's subjective opinion.**

Every player has a rating which is a guide to how good a player he or she is. If players improve, their rating will go up; if they experience a drop in performance, their rating will fall. The number of points gained or lost depends on the difference in ratings between them and their opponent and the weighting of the tournament they are playing in.

The Rankings list comprises only players who are eligible to play for Scotland. The Ratings list includes all players who compete in this country, regardless of their nationality.

The system works on the odds of whether a player should win or lose based on the difference between the players' ratings.

Players on equal ratings should have a 50-50 chance of winning or losing. The points to be won and lost are therefore low. Players with a separation of 100 rating points represents about a 1 in 4 (or 25%) chance of an upset, with the stronger player likely to win on three

occasions out of four. The points won or lost in the event of the stronger player winning are less than those won or lost in the event of the weaker player winning.

Whenever a match takes place between two players who have a large difference in ratings the expectation is that the stronger player will win. When the stronger player beats the weaker player there are only a few points to be gained or lost; if the weaker player unexpectedly wins there is a far greater gain of points for them and loss of points for their opponent. In other words, an unexpected result will create a bigger points addition or deduction.

The more results entered for any player, the greater the accuracy of the rating it produces. A player's rating should eventually reach a stable level that reflects the balance between points won and points lost. When achieved, only an improvement in performance should improve the ranking position.

Since men do not play women at all levels, men's and women's ratings are not comparable in our system except at the very bottom.

## Event Categories

There are four separate rating categories:-

Cadet – For those under the age of 15 as of 31<sup>st</sup> December during the current Administrative Year

Junior – For those under the age of 18 as of 31<sup>st</sup> December during the current Administrative Year

Senior – No age restriction

Veteran – For those 40 years of age and over on 1<sup>st</sup> January during the current Administrative Year

Points are earned depending on

- a) The category of event entered (Cadet, Junior, Senior or Veteran).
- b) The category of your opponent (Cadet, Junior, Senior or Veteran).

A Cadet entering a Cadet event will gain or lose Cadet points; a Junior entering a Junior event will gain or lose Junior points and a Veteran entering a Veteran event will gain or lose Veteran points. **Anyone** entering a Senior event will gain or lose Senior points, regardless of the category of their opponent.

Matches between players of the same category will result in both players gaining or losing points in their category AND the category of the event. For example, two Cadets meeting each other in a Junior event will gain or lose both Cadet AND Junior points. **Two Veterans meeting in a Senior event do not gain Veteran points as all Veterans are Senior too.**

Mixed events can be registered, however multi-gender encounters will only be used for calculating ratings if both participants have a rating less than 400.

## Starter Events

There is a “Beginner” incentive in place for those who are new to ranking competitions. This could be Regional Competitions, or some veteran events. This incentive can only be won as long as the player is still unrated.

Any player having three wins in a playing day against unrated players, will be awarded 100 starter points to get them on the rating list.

If they play enough rated players to obtain a rating, then the normal rules apply.

## Unrated Players

Unrated players gain a rating by playing at least 4 matches against players who already have a rating and achieving at least one win. The rating allocated depends on both how many wins and how high the rating of the opponents were.

- 1 Win – allocated same rating as opponent less 100 points
- 2 Wins - the median of the rating points of the two opponents
- 3 Wins – the median of the ratings of the three opponents plus 100 points
- 4 Wins or more with some losses – allocated same rating as highest opponent less 100 points
- 4 Wins or more with NO losses – allocated same rating as highest opponent plus 100 points

## Foreign Players including Home Country Players

Foreign players are likely to play less often and might never get a real rating on the Table Tennis Scotland list, so if they are in the top 30% of the ITTF World Ranking List then they are given a “dummy rating” before any results are entered. Those not in the top 30% are given a zero rating.

Foreign players from the home countries that meet the criteria will receive the ITTF “dummy rating”. The majority, who do not qualify, will continue to be allocated dummies from their performance in the Scottish rating tournaments as these players play in Scotland so often that to do otherwise would be ridiculous.

Foreign players who are members of Table Tennis Scotland are listed with the ratings but players with dummy values according to their ITTF Position are not.

The points equivalent of a particular ITTF Position in the list is always available on the website.

Note also that the new ITTF website misses players while still listing them so the position used by Table Tennis Scotland is the physical position in the list NOT the number the ITTF displays, e.g. if the ITTF website goes 1, 2, 3, 4, 5, missing, 6 then the Table Tennis Scotland system processes that as 1, 2, 3, 4, 5, 6, 7 and so on.

# Result Calculations

The Ranking Season runs from the 1<sup>st</sup> August through to 31<sup>st</sup> July.

The Ranking System is now a one year system, where all calculations are worked from the players' starting points as at 1<sup>st</sup> August (the beginning of the season).

All results from Table Tennis Scotland ranking events are entered into the computer when they are received at Head Office (this can take several weeks, but remember, results are calculated based on the date of the tournament and the system re-calculates intervening results). For every match the computer compares the ratings of the players involved and calculates the appropriate points. These depend on the difference in the players' ratings and on the importance of event in which the matches were played. **See sections below on Weighting Table and Points Table.**

## Bonus Points

The ranking system also rewards success in Tournaments by giving bonus points to winners and others who perform well at an event. Bonus Points are given for those events with a weighting 1.5 or greater according to the table below ***providing at least 16 players played in the event:***

| Weighting | last 8 | last 4 | Runner-up | Winner |
|-----------|--------|--------|-----------|--------|
| 1.5+      | +2     | +5     | +10       | +20    |
| 2.0       | +5     | +10    | +20       | +30    |
| 2.5       | +10    | +15    | +30       | +50    |
| 3.0       | +20    | +50    | +75       | +100   |

In banded events where a band is played in ***one round robin group of 7 or more players, the following bonus points apply:***

| Weighting | 3rd place | Runner-up | Winner |
|-----------|-----------|-----------|--------|
| 1.5       | +5        | +10       | +20    |

When any results are entered into the system it calculates from the player's starting point in strict order of play.

When an unrated player achieves a rating, the system will allocate this as his or her starting point and recalculate every result again from the start to produce an accurate rating for all players and all matches played.

If an error occurs, the system, when corrected, will recalculate all results **from the start of year**, so no player is disadvantaged.

## The Ranking and Ratings Lists

The Ranking and Ratings Lists will be published once a month. The tournaments that have been included will be published on the first page of the Ratings Lists.

The Ranking System is constantly changing as and when results are entered, corrections are made or when a player achieves their initial ranking. Please note, although the Ranking System constantly changes, the lists published on the website will only be updated once a month.

As tournament results are not received in strict date order, they are often processed in different months to which they are played. The new system takes into account when they were played. This makes it a fluid system with ratings changing daily as results are input into the system.

Let us look at what happens to the ratings of one player –

Player Z plays in 7 tournaments in the first three months of the season.

| Name of Tournament | Date Played | Results Entered | Points Earned |
|--------------------|-------------|-----------------|---------------|
| Tournament A       | 16-Aug      | 28-Aug          | A             |
| Tournament B       | 31-Aug      | 04-Sep          | B             |
| Tournament C       | 06-Sep      | 01-Oct          | C             |
| Tournament D       | 13-Sep      | 18-Sep          | D             |
| Tournament E       | 20-Sep      | 06-Oct          | E             |
| Tournament F       | 04-Oct      | 24-Oct          | F             |
| Tournament G       | 18-Oct      | 21-Oct          | G             |

The Ratings Lists are published 29/8, 30/9 and 31/10

| Date   | Rating Points               |
|--------|-----------------------------|
| 01-Aug | X                           |
| 28-Aug | X + A                       |
| 04-Sep | X + A + B                   |
| 18-Sep | X + A + B + D               |
| 01-Oct | X + A + B + C + D*          |
| 06-Oct | X + A + B + C + D* + E      |
| 21-Oct | X + A + B + C + D* + E + G* |

\* denotes a recalculated total

When the first list is published he has X + A points

When the second list is published he has  $X + A + B + D$  points

When the third list is published he has  $X + A + B + C + D^* + E + F + G^*$  points

In the fourth month a player whom Player Z played in tournament A gains a ranking, the system reworks the points from A and proceeds to use the new rating on B, C, D, E, F and G in turn creating an updated rating for Player Z without him entering tournaments in this month.

Player Z's rating when the fourth list is published in November is therefore  $X + A^* + B^* + C^* + D^* + E^* + F^* + G^*$  points.

You can see now that if we had audited a player (ie produced his rating) after period 2 he would have  $X + A + B + D$  points. Auditing him in Period 4 would show him having  $X + A^* + B^* + C^* + D^*$  for period 2 - a different figure. The only truly fixed ratings will be the starting points from which all calculations are done and the final rating at the end of the season when all results and adjustments have been completed.

Although this may seem complicated compared with the monthly fixed ratings it does produce a more accurate and fairer assessment of each player's rating.

## Inactive Periods

The Ratings Lists have a column stating inactive periods. The number of inactive periods will appear in this column – they may not have played, or they may have played in events not registered for the ranking scheme. Continued inactivity incurs penalties as detailed in the table below:

| Completed inactive periods | Action taken  |
|----------------------------|---|
| 1-5                        | Numbers appear against player                         |
| 7                          | Player not published on list but does not lose points |
| 12                         | Player loses their rating                             |

Players temporarily removed from the list will reappear at the same rating if they begin to play again within 12 months. Players who have been deleted from the computer database will be treated as new players if they begin to play again. They will only reappear on the list when they have collected the basic requirement of 4 matches and 1 win so that their initial rating can be calculated.



# Dummy Ratings Allocated by Tournament Organisers

Tournament Organisers may need to allocate a dummy rating to a player in order to band or seed players. This number is based on an informed decision and is relevant for the competition in question ONLY.

## The Weightings Table

As discussed in the previous sections, the amount of points won or lost in an encounter between two players is not only dependant on the ratings of the two players but in the importance of the tournament played – it's "weighting".

**Note:** Where both individual and team events are played in the same Competition, the team events will be 0.5 below the overall Competition weighting. The Weightings for Competitions as at 2015 onwards are shown below.

**All of these ratings are not a present being used and will be phased in over a period of time to monitor anomilies that may occur**

## THE WEIGHTINGS CHART

|  |   |
|--|---|
| <p><b>X 3</b><br/> <b>Olympic Games</b><br/> <b>World Championships</b><br/> <b>European Championships (Senior &amp; Youth)</b></p>  | <p><b>X 1.5</b><br/> <b>Friendly International Matches</b><br/> <b>British League (Other divisions)</b><br/> <b>Scottish National League</b><br/> <b>TTE Grand Prix &amp; Satellite Grand Prix</b><br/> <b>Home Countries Championships</b><br/> <b>TTS sanctioned open events</b><br/> <b>Vetts. rating tournaments.</b></p> |
| <p><b>X 2.5</b><br/> <b>Olympic Qualification Tournaments</b><br/> <b>Commonwealth Championships &amp; Games</b><br/> <b>Euro-Asia Matches</b><br/> <b>European Championships Qualification Matches</b><br/> <b>European Top 12 (Seniors)</b><br/> <b>European Top 10 (Juniors)</b><br/> <b>ITTF World Tour (Pro-Tour)</b><br/> <b>ETTU Cup</b><br/> <b>European Champions League</b><br/> <b>ITTF World Team Cup</b><br/> <b>ITTF World Cup</b></p> | <p><b>X 1.25</b><br/> <b>British Junior British League</b><br/> <b>Regional Closed Championships</b></p>  |
| <p><b>X 2</b><br/> <b>Scottish National Championships (all age groups)</b><br/> <b>Other Foreign Open Championships</b><br/> <b>ITTF World Junior Circuit</b><br/> <b>Six Nations</b><br/> <b>British League (Premier)</b></p>   | <p><b>X 1</b><br/> <b>Regional Leagues &amp; Cups</b></p>   |
| <p><b>X 1.75</b><br/> <b>4 Star Open Tournaments</b><br/> <b>Junior and Cadet Masters</b><br/> <b>UK School Games</b><br/> <b>Home Nations (all age groups)</b></p>  | <p><b>X 0.75</b><br/> <b>1 Star Open Tournaments</b><br/> <b>Starter events</b></p>   |

**Note:** Players must be affiliated to be included in the points awarded for the above events

# The Points Table

(Difference in player ratings shown down the left; Tournament Weighting shown across the top)

| EXPECTED LOSSES |     |      |     |      |     | UNEXPECTED LOSSES |      |      |      |     |
|-----------------|-----|------|-----|------|-----|-------------------|------|------|------|-----|
|                 | 0.5 | 0.75 | 1.0 | 1.25 | 1.5 | 0.5               | 0.75 | 1.0  | 1.25 | 1.5 |
| <b>0-24</b>     | -2  | -3   | -4  | -5   | -6  | -2                | -3   | -4   | -5   | -6  |
| <b>25-49</b>    | -2  | -3   | -4  | -5   | -5  | -2                | -3   | -4   | -5   | -8  |
| <b>50-99</b>    | -2  | -3   | -3  | -4   | -5  | -3                | -5   | -6   | -8   | -9  |
| <b>100-149</b>  | -1  | -2   | -3  | -4   | -4  | -4                | -6   | -8   | -10  | -12 |
| <b>150-199</b>  | -1  | -2   | -2  | -3   | -3  | -5                | -8   | -10  | -13  | -15 |
| <b>200-299</b>  | -1  | -2   | -2  | -2   | -2  | -6                | -9   | -12  | -15  | -18 |
| <b>300-399</b>  | 0   | -1   | -1  | -1   | -1  | -8                | -12  | -16  | -20  | -24 |
| <b>400-499</b>  | 0   | 0    | 0   | 0    | 0   | -10               | -15  | -20  | -25  | -30 |
| <b>500+</b>     | 0   | 0    | 0   | 0    | 0   | -13               | -20  | -26  | -33  | -39 |
| EXPECTED WINS   |     |      |     |      |     |                   |      |      |      |     |
|                 | 0.5 | 0.75 | 1.0 | 1.25 | 1.5 | 1.75              | 2.0  | 2.25 | 2.50 | 3.0 |
| <b>0-24</b>     | 4   | 6    | 8   | 10   | 12  | 14                | 16   | 18   | 20   | 24  |
| <b>25-49</b>    | 4   | 6    | 7   | 9    | 11  | 12                | 14   | 16   | 18   | 21  |
| <b>50-99</b>    | 3   | 5    | 6   | 8    | 9   | 11                | 12   | 14   | 15   | 18  |
| <b>100-149</b>  | 3   | 4    | 5   | 6    | 8   | 9                 | 10   | 11   | 13   | 15  |
| <b>150-199</b>  | 2   | 3    | 4   | 5    | 6   | 7                 | 8    | 9    | 10   | 12  |
| <b>200-299</b>  | 2   | 2    | 3   | 4    | 5   | 5                 | 6    | 7    | 8    | 9   |
| <b>300-399</b>  | 1   | 2    | 2   | 3    | 3   | 4                 | 4    | 5    | 5    | 6   |
| <b>400-499</b>  | 1   | 1    | 1   | 1    | 2   | 2                 | 2    | 2    | 3    | 3   |
| <b>500+</b>     | 1   | 1    | 1   | 1    | 1   | 1                 | 1    | 1    | 1    | 1   |
| UNEXPECTED WINS |     |      |     |      |     |                   |      |      |      |     |
|                 | 0.5 | 0.75 | 1.0 | 1.25 | 1.5 | 1.75              | 2.0  | 2.25 | 2.50 | 3.0 |
| <b>0-24</b>     | 4   | 6    | 8   | 10   | 12  | 14                | 16   | 18   | 20   | 24  |
| <b>25-49</b>    | 5   | 7    | 9   | 11   | 14  | 16                | 18   | 20   | 23   | 27  |
| <b>50-99</b>    | 6   | 9    | 11  | 14   | 17  | 19                | 22   | 25   | 28   | 33  |
| <b>100-149</b>  | 7   | 11   | 14  | 18   | 21  | 25                | 28   | 32   | 35   | 42  |
| <b>150-199</b>  | 9   | 13   | 17  | 21   | 26  | 30                | 34   | 38   | 43   | 51  |
| <b>200-299</b>  | 11  | 17   | 22  | 28   | 33  | 39                | 44   | 50   | 55   | 66  |
| <b>300-399</b>  | 15  | 23   | 30  | 38   | 45  | 53                | 60   | 68   | 75   | 90  |
| <b>400-499</b>  | 20  | 30   | 40  | 50   | 60  | 70                | 80   | 90   | 100  | 120 |
| <b>500+</b>     | 25  | 38   | 50  | 63   | 75  | 88                | 100  | 113  | 125  | 150 |

When consulting the table above you need to know the ratings of both players at the time the tournament was played and the weighting of the tournament.

By calculating the difference in ratings between the players you can see the points that will be gained or lost for each outcome.

Example:

Player A rating 1472 plays Player B rating 1247 in a 1.5 weighted tournament.

Difference in rating 225.

As the stronger player A is expected to win and if the match goes this way Player A gains 5 points and Player B loses 2 points.

If Player B wins unexpectedly Player B gains 33 points and Player A loses 18 points.

## Personal Audit Trails

A player's personal audit trail is available in their Table Tennis 365 **Members Area** under the Rankings tab.

<https://tabletennis365.com/tabletenniscotland/membership/login>

## End of Season

To aid competitiveness at the end of each season all ratings are reduced in value by 10%. This serves to bring players closer together without changing the rating order thus increasing the possibility of a lower-rated player overtaking a higher-rated player.

Where players move up from Cadet to Junior or Junior to Senior, or when they become Veterans, their points in the new section will be transferred from the previous level if the points at that level are greater than the points at the new level. For example, a Cadet who has 1,539 Cadet points and 1,412 Junior points will be listed at 1,539 Junior points when they move up to the higher age group.

## Administration

The Ranking Scheme and data entry is managed by Table Tennis Scotland guided by 365 and independent ranking advisor Malcolm Macfarlane .

All questions, queries and complaints should be directed in the first instance to Table Tennis Scotland

Admin: [cynthia.robinson@tabletennisscotland.co.uk](mailto:cynthia.robinson@tabletennisscotland.co.uk)

Players who think that there is an error with their rating can query by email or in writing to Table Tennis Scotland [cynthia.robinson@tabletennisscotland.co.uk](mailto:cynthia.robinson@tabletennisscotland.co.uk)

## Important Notice

Whilst every care is taken that the data inserted into the computer is accurate, the occasional error is inevitable.

Table Tennis Scotland accepts no responsibility of any kind for such errors and their consequences. Any mistake will be investigated and proven errors will be rectified in a subsequent list.

Any queries from the list should arrive within three weeks of the list publication date and be sent to Table Tennis Scotland [cynthia.robinson@tabletennisscotland.co.uk](mailto:cynthia.robinson@tabletennisscotland.co.uk)

## End Note

The Table Tennis Scotland Ranking Scheme has proved itself to be accurate and consistent, and the concept of ratings is becoming more widely understood and it is expected the new system will be even more accurate. We have a system which gives the highest ratings to those players who consistently perform the best. Above all it is a dynamic system that changes players' ratings if their playing standard changes.

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