



## **By-Law 16**

### **ATHLETE RATINGS**

**Version:** as ratified on 17/12/2020

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## **Name**

1. This By-Law shall be referred to as the **Athlete Ratings By-Law**.

## **Source**

2. This By-Law is made pursuant to rule 33 of the Constitution of Table Tennis Victoria Incorporated.

## **Intent**

3. Table Tennis Victoria seeks to rate its table tennis athletes according to their skill level, particularly within age categories, to assist with event seedings and for other selection and recognition purposes.
4. The underlying philosophy of the system is to recognise performance in table tennis matches.

## **Scope**

5. This By-Law is intended to govern the ratings of Victorian athletes, although the *Ratings Central* system maintains information about other players that compete against Victorian athletes.
6. TTV encourages the submission of all pennants and tournaments to *Ratings Central*. *Ratings Central* only allows submission of singles events. *Ratings Central* does not permit the submission of handicapped events.

## **System of rating**

7. Table Tennis Victoria has adopted the *Ratings Central* system for rating athletes, which is an international rating system used for table tennis and related sports.
8. Information about *Ratings Central* can be found on its website:  
<https://www.ratingscentral.com/>

## Publication of rating points

9. Rating points shall be published on the TTV website via the provision of a link to the *Ratings Central* website.

## Rating points

10. Each athlete's skill level is described by a rating with mean and standard (plus/minus) deviation e.g. 1350 (+/-50).
11. Athletes gain points for singles matches they win and lose points for matches they lose. The mean and standard deviation is recalculated according to the rating of the opponent or the skill difference between the two competitors in each match. It is possible to gain/lose 0 points.
12. The rating is recalculated after each tournament or when matches are submitted to *Ratings Central* for processing.

## Rating and standard deviation of a player

13. The rating system assigns a rating law to each player. This law is a probability distribution and contains a mean and standard deviation. Altogether, this creates a function that allows the system to determine the probability that the athlete's playing strength is a certain value (for example, 1200 (+/- 100)).
14. The mean of the law is the location of the centre of the law. The mean of a player's law is the rating system's best estimate of the athlete's playing strength. The mean of a player's law is the rating that the system outputs for the player.
15. The standard deviation measures the spread of a law. The greater the standard deviation of a player's law, the *less certain* the rating system is of the player's playing strength. The probability that a player's playing strength is within 1 standard deviation of the mean of the player's law is 68% (more or less). The probability that it is within 2 standard deviations is 95% (more or less). The probability that it is within 3 standard deviations is 99.7% (more or less).

**Example:** Player A has a law of 1350 (+/-50). Their central mean is 1350 and their standard deviation is 50. We would say there is 68% (more or less) confidence their *range of playing standard* is between 1300 and 1400. We would be 95% (more or less) confident their *range of playing standard* is between 1250 and 1450 and 99.7% (more or less) confident their *range of playing standard* is between 1200 and 1500. The methodology is that a rating is not static but highlights a player's range of playing abilities.

## Defaults & Forfeits

16. A 'default' is defined as a withdrawal from an event that incurs no penalty to an athlete's rating. A 'forfeit' is defined as a loss against the forfeiter as a result of withdrawing from an event or if the match in question was in progress and play was suspended as a result of injury, misbehaviour or at the Tournaments Committee's discretion. For the purposes of this regulation –

- an event at a tournament starts at the listed commencement time even though a singles match or matches may not have been played
- a player who does not attend on the day of the tournament is deemed to have withdrawn before the start of the event – and whilst it is expected such players notify the Tournament Director of their withdrawal, a failure to do so shall not affect the operation of this regulation
- a player who does attend on the day of the tournament may only withdraw from an event prior to the listed commencement time – such player is required to notify the Tournament Director or Referee of their withdrawal from an event and a failure to do so shall render such player liable to a forfeited loss.

**Example 1:** Player A enters the U/18 Boys Singles event which is listed to commence at 11.00 am on Saturday, 1 March. Player A does not attend the tournament on the relevant date. For the purposes of the event, Player A is deemed to have defaulted from the event – this will not affect his athlete rating points.

**Example 2:** Player B enters the U/18 Boys Singles event which is listed to commence at 11.00 am on Saturday, 1 March. Player B does attend the tournament on the relevant date. Player B plays in the U/15 Boys Singles event at 9.00 am but then advises the Tournament Director at 10.30 am that he wishes to withdraw from the U/18 Boys Singles event. For the purposes of the U/18 Boys Singles event, Player B is deemed to have defaulted from the event – this will not affect his athlete rating points.

**Example 3:** Player C enters the U/18 Boys Singles event which is listed to commence at 11.00 am on Saturday, 1 March. Player C does attend the tournament on the relevant date. Player C plays in the U/15 Boys Singles event at 9.00 am but then advises the Tournament Director at 11.30 am that he wishes to withdraw from the U/18 Boys Singles event. Player C has not yet played a match in that event even though the event has commenced. For the purposes of the U/18 Boys Singles event, Player C is deemed to have forfeited and thus lost his match against his listed opponent – this will affect his athlete rating points.

17. A forfeit at a pennant competition match will only be deemed as a loss if and only if the match in question was in progress and play was suspended as a result of injury, misbehaviour or at the Committee's discretion. For avoidance of doubt, Example 3 in regulation 16 shall not be deemed a loss but rather a default in pennant competitions.

#### **New athletes**

18. Event Directors assign event priors for their event (i.e., tournament or pennant) according to the list of Rating Guidelines (Annexure A). New players by default are assigned these event priors as their initial priors. The final rating will be calculated by *Ratings Central* once the tournament (or pennant) results are submitted.
19. If a new player's playing strength is *vastly* different from all the players at the event, e.g., much better or much worse, then the Event Director may set that player's prior mean and standard deviation individually. Please refer to Guideline 1 in the Ratings Guidelines (Annexure A).

#### **Inactive athletes**

20. Over time, an inactive player's "standard deviation" will increase automatically to reflect the increasing uncertainty of their standard of play. Although the athlete's mean will still stay the same, the increase in his or her "standard deviation" will change the way wins and losses are calculated.
21. For the purposes of tournament seedings, where a player's standard deviation is equal to or exceeds "100", the player's rating is automatically deemed "relatively uncertain" – the State Selection Panel may apply two standard deviations from the mean.

#### **Adjustment of rating order by State Selection Panel**

22. Subject to regulation 23, the State Selection Panel shall seed athletes for tournaments (and for any other purpose) in the order that the athletes appear in the *Ratings Central* ratings list as at the published close of entries date as per the tournament's condition of entry.
23. However, the State Selection Panel may only alter the seeding order of an athlete where:
- the relevant athlete is within one standard deviation of another athlete, and

- the Panel is satisfied the playing order of the athletes should be altered (such decision only requiring a majority vote).

**Example 1:** Player A has a mean of 1350 and a standard deviation of 50; we will consider Player A to have a rating between 1300 and 1400. Player B has a rating of 1250 (+/-90); we will consider Player B to have a rating between 1160 and 1340. Due to the overlap of ranges, the Panel is open to seed Player B higher even though Player A has a higher mean.

**Example 2:** Player A has a mean of 1500 and a standard deviation of 50; we will consider Player A to have a rating between 1450 and 1550. Player B has a rating of 1300 (+/-90); we will consider Player B to have a rating between 1210 and 1390. As there is no overlap of ranges, the Panel is not open to seed Player B higher than Player A.

**Example 3:** Player A has a mean of 2450 and a standard deviation of 200; we will consider Player A to have a rating between 2050 and 2850 [adopting 2 standard deviations – see regulation 21]. Player B has a rating of 2000 (+/-75); we will consider Player B to have a rating between 1925 and 2075. Due to the overlap of ranges, the Panel is open to seed Player B higher even though Player A has a higher mean. Accordingly, it is open to the Panel to seed Player B higher than Player A.

24. The above regulations apply to all singles events.
25. In respect of doubles events, the pair is seeded in the same way as singles events but using the average of the two player's means.
26. For avoidance of doubt, where an athlete does not appear in the published rating list, the State Selection Panel may seed such an athlete at their discretion informed by any known performances of the athlete. However, on matters relating to issuing an initial prior they should refer to the Ratings Guidelines (Annexure A) or refer to the relevant personnel authorised to give advice.

### **Ratings Central Representative**

27. In assisting Table Tennis Victoria with the implementation of the *Ratings Central* system throughout Victoria, the Tournaments Committee may assign a sitting member or establish the *Ratings Central Sub-Committee* (who internally appoints a Chair) whose scope and functions are regulated by this By-Law.
28. The Tournament Committee representative or the Chair of the Sub-Committee is responsible for:
  - Being Table Tennis Victoria's (and its members) point of call (directly or indirectly);

- Charged with responsibility that all decisions are made in a timely manner and in accordance with any directives issued by Table Tennis Victoria or the Tournaments Committee; and

*If a Sub-Committee is established, the Chair must also:*

- Preside Sub-Committee meetings (if absent then the Deputy Chair will assume responsibilities of the Chair); and
- Ensure the minutes of all meetings are taken and kept of each meeting and forward these to the Chief Executive Officer of Table Tennis Victoria as soon as practical.

29. This Representative or Sub-Committee will continue to exist at the appointee's leisure until it has been resolved to disband. For avoidance of doubt, the functions the Representative or Sub-Committee possessed would be assumed by the Chair of the Tournaments Committee.

#### **General Functions**

30. In addition to the scope detailed in regulation 5 and 6, the Representative or Sub-Committee shall provide advice to Table Tennis Victoria and its members on any matter pertaining to *Ratings Central*.
31. The Representative or Sub-Committee shall decide on any other matter when requested to do so in writing or by electronic transmission by Table Tennis Victoria or its members.

#### **Special Functions**

32. In addition to the general function set out in regulation 30, the Representative or Sub-Committee shall ensure the governance and correct usage of *Ratings Central* in Victoria.

An instructive (but non-exhaustive) list of functions required of the Representative or Sub-Committee includes:

- Providing recommendations to the Tournaments Committee or Chief Executive Officer of Table Tennis Victoria on *Ratings Central* matters as a result of communications from *Ratings Central* or the *Ratings Central* Australian contact(s);
- Monitoring the *Ratings Central* system to ensure the correct initial prior bands as per Ratings Guidelines (Annexure A) are being used;



- Ensuring the *Ratings Central* system is not being misused to give players an unfair advantage as a result of submission of unsanctioned events (i.e. tournaments and pennants recognised by Table Tennis Victoria) or non-submission of sanctioned events (i.e. being selective of certain matches).
- Informing Victorian Event Directors any notices pertaining to *Ratings Central* either from *Ratings Central* or Table Tennis Victoria.

33. The Representative or Sub-Committee shall use its best endeavours to ensure the integrity of the *Ratings Central* system is maintained at all TTV affiliated tournaments and competitions.

### **Powers**

34. In accordance with regulation 32, the Representative or Sub-Committee has the power to perform all such acts as appear to them to be essential to the proper management and affairs of such Representative or Sub-Committee.

35. For any matter arising of a minor nature (e.g. misspelt name, fixing duplicate profiles, adjusting a prior band to one that is allowed as stipulated as per Ratings Guidelines (Annexure A)), this may be unilaterally resolved by the Representative or Chair through email without input from the Sub-Committee.

36. For any matter arising of a perverse nature (e.g. anything that changes an athlete's rating not already described under regulation 35), this must be resolved by the Sub-Committee through written or electronic communication (if there is no Sub-Committee then the Tournaments Committee will assume responsibilities). A simple majority vote is required if the matter is deemed perverse enough to induce a fix (be it accidental or intentional misuse as per regulation 32).

37. In an attempt to resolve the matters in regulation 36, the Representative or Chair will attempt to make initial contact (email or telephone) with the entity (or event director) in question. This should then be followed up with formal written notification of the issue identified and the steps required to address the problem within a stipulated timeframe.

38. It is best that the entity (or event director) in question rectifies the issue themselves. However, they may seek or be offered the assistance of the Representative or Chair if required and if so, should follow all steps and requests required of them (e.g. temporarily providing *Ratings Central* details).

39. If the issue raised in regulation 36 has not been rectified by the stipulated time-frame and the entity (or event director) has refused assistance as prescribed in regulation 38, the Sub-Committee or the Representative may refer the issue to the Tournaments Committee; who may refer the issue to the State Disciplinary Panel by virtue of section 13.1 a) of the Constitution.

#### **Decisions**

40. The Representative or Sub-Committee shall use their best endeavours to ensure all decisions and resolutions (including advice) are made in accordance with all relevant by-laws and the Objects of Association as set out in rule 2 of the Constitution of Table Tennis Victoria incorporated.

## Annexure A

### Ratings Guidelines for TTV affiliated Clubs & Event Directors

In order to assist new and current Event Directors with respect to issuing event priors, the following guidelines should be applied to all TTV pennants and tournaments. Event Directors should refer to the TTV authorised personnel (refer to regulation 28) to provide advice on *Ratings Central* matters *before* referring to *Ratings Central*. The contact details of such personnel are provided on the Table Tennis Victoria website.

A common-sense rule of thumb should be applied: **if you are uncertain, please seek help.**

#### **Pennant Bands** (includes Country and Metropolitan Championships)

- |                                     |                |
|-------------------------------------|----------------|
| • Some high Pennant Grades          | 1800 (+/- 200) |
| • Most high/some mid Pennant Grades | 1600 (+/- 200) |
| • Some mid/some high Pennant Grades | 1400 (+/- 200) |
| • Most mid Pennant Grades           | 1200 (+/- 200) |
| • Most low/some mid Pennant Grades  | 1000 (+/- 150) |
| • Some bottom Pennant Grades        | 800 (+/- 150)  |

*If you have a large range of playing standards in a single division, you may consider increasing the standard deviation (no more than 300) while observing the 500-floor rule e.g. 1200 (+/- 300).*

#### **State Tournament Bands**

- |                                    |                |
|------------------------------------|----------------|
| • Metropolitan Seniors Tournament  | 1600 (+/- 300) |
| • Metropolitan Veterans Tournament | 1300 (+/- 300) |
| • Metropolitan Juniors Tournament  | 1200 (+/- 300) |
| • Country Seniors Tournament*      | 1500 (+/- 300) |
| • Country Veterans Tournament      | 1200 (+/- 300) |
| • Country Juniors Tournament       | 1100 (+/- 250) |

*\*Combined Junior & Senior Tournaments should use the Country Seniors Tournament Band*

#### **Minimum Initial Prior – the 500 Floor Rule**

We should also note that the following inequality should be adhered to:

$$\text{Initial Mean} - 2 \times \text{Initial Standard Deviation} \geq 500$$

This means that the 'floor' as a result of their initial mean minus 2 standard deviations must be greater than 500. By following the prior bands, you will always satisfy this rule. i.e. the floor of lowest band of 800 (+/- 150) is 500 as  $800 - 2 \times 150 = 500$ .

However, this should be treated as a *guide*. The following examples below may assist you in your discretion.

**Guideline 1:** If over time, it has been recognised that a new player's playing strength is vastly different from all the players at the event, you could consider an individual prior for that player that still adheres to the standardized prior bands (as per regulation 19). For example: a new player in a country affiliate's Division 2 competition began on 1200 (+/- 200) but consequently lost several matches and considered nowhere near Division 2 (or even 3) level. The event director might consider individually setting the players prior to 1000 (+/- 150) or even 800 (+/- 150) instead. Of course, best practise suggests that if are uncertain, you may request advice from the TTV authorised personnel.

**Guideline 2:** Say you are a club who submits many divisions (for example 6), it might be easier to set individual priors *according* to the pennant prior bands and submit as one event. It is unreasonable to assume an event prior band to encapsulate multiple divisions; unless the competition only has a single division with a large range of playing standards.

**Guideline 3a:** To assist you in applying the bands to certain divisions, you should first seek the average division of the grade by checking if there are players already on *Ratings Central*. If there is a sufficient number, then you should take an average rating and then compare it to the initial prior bands above. The guidelines adopt a 'round-down' approach unless the average is significantly above the mid-way point. For example: if the average was 1470, round down to the 1400 (+/- 200) initial prior. However, if it was *greater than* 1500, then round up to the 1600 (+/- 200) initial prior.

**Guideline 3b:** However, in the highly unlikely circumstance that your division does not contain a sufficient number of players already on *Ratings Central* to apply this average rule, you could compare your division to another club's. For example: *'my best Division 1 player is not as good as Player X who plays Division 3 in Club A. The average of that Division is 1300. Therefore, I should start my Division 1 players on the 1200 (+/- 200) initial prior to account for this estimation.'* The vice versa also applies and your references should be *as close as possible* to your situations. However, if you are still uncertain, then please seek the advice of relevant authorised personnel.

## **Ratings Central ITTF Tournament Bands**

For reference, the below prior bands are the ITTF Tournaments Bands that *Ratings Central* uses. These are not to be used in any TTV sanctioned tournament for any reason.

• ITTF Male Adult Pro Tour Main Draw	<b>2825 (+/- 137)</b>
• ITTF Female Adult Pro Tour Main Draw	<b>2450 (+/- 100)</b>
• ITTF Male Adult	<b>2425 (+/- 337)</b>
• ITTF Male Youth (<21)	<b>2325 (+/- 337)</b>
• ITTF Male Junior (<18)	<b>2225 (+/- 337)</b>
• ITTF Female Adult	<b>2100 (+/- 275)</b>
• ITTF Female Youth (<21)	<b>2025 (+/- 287)</b>
• ITTF Female Junior (<18)	<b>1950 (+/- 300)</b>
• ITTF Male Cadet (<15)	<b>1900 (+/- 375)</b>
• ITTF Female Cadet (<15)	<b>1700 (+/- 375)</b>
• ITTF Male Mini Cadet (<13)	<b>1600 (+/- 375)</b>
• ITTF Male Hopes (<11)	<b>1500 (+/- 375)</b>
• ITTF Female Mini Cadet (<13)	<b>1400 (+/- 375)</b>
• ITTF Female Hopes (<11)	<b>1300 (+/- 375)</b>