

By-Law 16

## ATHLETE RANKINGS

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## Name

1. This By-Law shall be referred to as the Athlete Rankings 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 rank 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 ranking of Victorian athletes, although the system maintains information about other players that compete against Victorian athletes.

## System of ranking

6. Table Tennis Victoria has adopted the Ratings Central system for ranking athletes, which is an international ranking system used for table tennis.
7. Information about Ratings Central can be found on its website.

## Publication of ranking points

8. Ranking points shall be published regularly on the TTV website (or via provision of a link to the Ratings Central website).

## Ranking points

9. Each athlete's skill level is described by a single points ranking with one standard (plus/minus) deviation.
10. Athletes gain points for singles matches they win and lose points for matches they lose. Each win or loss is weighted according to the ranking points of the opponent or the skill difference between the two competitors in each match.
11. Ranking points are recalculated after each tournament or when matches are submitted for processing.

## Ranking and standard deviation of a player

12. The ranking system assigns a ranking law to each player. From the law, the system may determine the probability that the athlete's playing strength is a certain number (for example, 1200 points).
13. The mean of the law is the location of the centre of the law. The mean of a player's law is the ranking system's best estimate of the athlete's playing strength. The mean of a player's law is the ranking that the system outputs for the player.
14. 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).

## Forfeits

15. A forfeit at a tournament shall be deemed a loss against the forfeiter, except where an athlete withdraws before the start of an event. 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 forfeited from the event - this will not affect his athlete ranking 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 forfeited from the event - this will not affect his athlete ranking 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 lost his match against his listed opponent - this will affect his athlete ranking points.
16. A forfeit at a pennant competition match shall not be deemed a loss against the forfeiter.

## New athletes

17. New athletes are assigned "approximate" points at the start of a tournament (or pennant match), and this will be adjusted once the tournament (or pennant) results are submitted and calculated according to the win/loss ratio (dependant on the player's performances).
18. The ranking system assigns a law to each new (unranked) player. This law reflects what we expect the playing strength of a new player in the particular event to be. Event directors shall determine what mean and standard deviation should be used for their event based on their experience. Event directors can also specify a law for a particular new player based on their knowledge of that player. Often, the standard deviation for a new player will be in large reflecting the range in playing strength of unranked players that may
enter the event. After playing an event or two, the standard deviation of a new player's law should drop significantly - how quickly this happens depends on how many matches the player plays, the outcome of the matches, and the laws of the player's opponents.

## Inactive athletes

19. Over time, a player's "standard deviation" will increase automatically to reflect the unknown standard of play. Although the athlete's ranking will still stay the same, the increase in his or her "standard deviation" will change the way wins and losses are calculated.
20. Where a player's standard deviation is equal to or exceeds " 100 ", the player's rating is automatically deemed "relatively uncertain" - in such circumstances, and notwithstanding regulation 23, the State Selection Panel may assign two standard deviations of the mean of the player's law to that relevant player.

## Unregistered players

21. An unregistered player shall be removed from the published ranking list.

## Adjustment of ranking 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 latest ranking list as published by Ratings Central (and not Table Tennis Victoria).
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 ranking of $1350(+/-50)$. Player B has a ranking of $1250(+/-90)$. Thus, the Panel can say with $68 \%$ confidence [1 standard deviation] that Player A has a ranking
between 1400 and 1300 and Player B has a ranking between 1340 and 1160. Accordingly, even though Player A has a higher mean ranking, it is open to the Panel to seed Player B higher.

Example 2: Player A has a ranking of $1500(+/-50)$. Player B has a ranking of $1300(+/-90)$. Thus, the Panel can say with $68 \%$ confidence [1 standard deviation] that Player A has a ranking between 1550 and 1450 and Player B has a ranking between 1390 and 1210. Accordingly, it is not open to the Panel to seed Player B higher than Player A.

Example 3: Player A has a ranking of $2450(+/-200)$. Player B has a ranking of $2000(+/-75)$. Thus, the Panel can say with $95 \%$ confidence [adopting 2 standard deviations - see regulation 20] that Player A has a ranking between 2850 and 2050 and Player B has a ranking between 2075 and 1925 (note that as Player B has a standard deviation that does not exceed 100, the player is still assigned only 1 standard deviation for the purposes of ranking). Accordingly, it is open to the Panel to seed Player B higher than Player A. However, absent regulation 20, the Panel would have had to assign 1 standard deviation to Player A which results in a ranking between 2650 and 2250 and thus Player B could not have been ranked higher than Player A.
24. The above regulations apply to all singles events.
25. In respect of doubles events, athletes are seeded in the same way as singles events, but using the combined total of the relevant ranking points.
26. For avoidance of doubt, where an athlete does not appear in the published ranking list, the State Selection Panel may seed such an athlete at their discretion informed by any known performances of the athlete.

