

## **BRIDGE SCORING METHODS FOR PAIRS and TEAMS**

Various methods exist for scoring a series of boards, played as either 'pairs' or 'teams'. Modern computer software handles all these types of scoring, but players should have some idea as to what is the basis for each type.

As a general guide based on the method of scoring, in a pairs event your score is based on your ranking against other pairs, whereas in teams the magnitude of the score against each other team is the major factor.

### **Match-point Pairs Scoring**

This is the most common form of pairs' scoring used at all levels.

On each board a pair scores two match-points for each other pair with a lower score, and one match-point for each other pair with the same score. The opponents receive the complement score.

For example if a board is played a total of 11 times then a 'top' on the board would be 20 match-points (the 'top' pair beating 10 other pairs x 2). If a North/South pair score 8 points on the board (i.e. there are 4 pairs with a worse score) then their East/West opponents would score 12 match-points.

To easily determine the 'top' on the board, if the board is played  $n$  times then the top is  $2n-2$  match-points.

Complications occur if every board is not played the same number of times, primarily due to half tables, or an incomplete movement, or boards with an artificially adjusted score (av, av+ etc.). In this case, boards played fewer times have to have their 'tops' increased to the same top as the board with the highest number of plays. If computer scoring, this is done by use of the Neuberg formula which caters for the probability that if a board with a lower top had been played more times, there is a chance a pair's score on this board in isolation may have had a higher or lower score if played additional times.

The actual formula is:

$$\text{Adjusted Match Points} = (M \times E) + (E - A) / A$$

where  $M$  is the match points considering the scores in isolation;  $E$  is the number of scores on a board played the highest number of times;  $A$  is the actual number of scores on this board.

These match-points are then added across all the hands that a pair plays in order to determine the winner. Scores are then converted to percentages of a theoretical maximum (actual score/potential maximum). Score of 65% or more are usually needed to win a tournament.

In basic Mitchell movements the overall scores are usually compared separately for North-South pairs and for East-West pairs i.e. two different 'fields', so that there is one winner in each group (unless arrow-switched).

### **International Match Point Scoring (IMPs)**

This is the basic form of scoring for a teams' event.

In a teams' match (head-to-head or multiple teams), each team has one pair playing North/South and the other pair playing East/West, so on each board there are two scores for the two teams. The nett score for one of the teams is then calculated (e.g. North/South of team 'A' score +620, and East/West

of team 'A' score -170.) the nett score for that team is +450. Their opponents, Team 'B' would have a nett score of -450. The scores could be presented as such, but in order to lessen the effect of a really good or bad result, this absolute score is translated into a number between 0 and 24 on a pre-defined scale (IMP scale). For example, a score difference of 20-40 is 1 IMP, a score difference of 50-80 is 2 IMPs, and so forth. In the example above, +450 translates to 10 IMPs (and -450 would be -10 IMPs).

Having calculated the Imps on each board these are then added together to provide the total imp score for all the boards in the event.

In many team matches, where each team plays the same number of team opponents, the total imp score against each team is then translated into a Victory Point score. This partly addresses the situation where a good team plays a bad team on a set of boards that have the potential for extreme scores (a swinging set of boards). The IMP margin of victory is calculated for a given match. This margin of victory is used to distribute victory points between the two teams (typically 20 or 25 total victory points dependent upon the number of boards in each match). The closer the match, the more evenly the points are distributed. For example, in a tied match, on a 20VP scale, each team would get 10 victory points. If a team won by 10 IMPs, the winning team would get 14 victory points and the losing team 6 victory points. If a team won by 28 IMPs, the winning team would get 20 victory points and their opponents 0 victory points, and so on. The total number of victory points for each team is then used to determine a team's rank in the event.

### **Butler Scoring**

Butler scoring is one method of scoring a pairs' event as if it were a teams' event. For Butler scoring a 'datum' score is first calculated, which is the average score on each board. In order to avoid extremes the best and worst score(s) is usually omitted from the datum calculation. The datum score is rounded to the nearest 10 points. The score that you actually obtain is then compared with this datum score, to give you an 'average team score'.

So if the average is + 478, the datum score is +480 (North/South). If you as North/South actually scored +200, you have performed worse than average, and your Butler imp score would be -280 (480-200) converted to imps. North/South -8 imps; East/West +8 imps.

### **Cross-Imp Scoring (Imp Pairs)**

Cross-imping is also a (better) method of scoring pairs' as if it were a teams' competition. It has largely superseded Butler Scoring. It is extensively used on online platforms, and in 'Trials' where entry is on a teams' basis, but to assess the performance of each pair in the team, cross-imp scoring is necessary.

In cross-imping, if say you are North/South, at every other table that the board is played, the East/West at that table are considered to be your team-mates, and an imp score can be calculated for the play of that board. The total of each of these plays is added together, and simplistically then divided by the total number of other plays, to give an average imp score – the cross-imp score

So for example if as North/South you score +420, and the board is played a total of six times (including your own play), and the five other East/West scores are -450, +100, +200, -400, -590, then your score of +420 is compared with each of the other plays to give imps. of -1, +11, +12, +1, -5: total +18. So your cross-imp score would be  $18/5 = +3.6$  x-imps (and you opponents would score -3.6 x-imps)

(there are modifications to the above method, involving more complex mathematics, but the above is commonly used)

The advantages of cross-imping (as against Butler) include:

- Cross-imping is considered fairer and more like teams' scoring, sinceimps are calculated using actual bridge results, not artificial averages. The imp scale was determined using bridge results, so to bring non-bridge scores into the equation in un-sound.
- Butler scoring has a built in bias, in that theimps available to NS and EW can differ. With cross-imping, the NS and EW scores always balance.
- with Butler scoring, you average first then calculate later, which is mathematically un-sound. With cross-imping you calculate first then average later.
- it should be that small differences in scores separate players in an expert field, yet with Butler, making that extra trick can mean nothing. Different scores can score the sameimps.
- with Butler, the extremes are discarded before computing the average. This is un-sound, as it suggests that the extremes are always irrelevant which is not always true. With cross-imps, the scores at all other tables are used.

The only real disadvantage is that players cannot calculate the match result themselves, which they can in teams events, or in Butler events once the datum has been announced. But this should not be a concern.

### **Point-A-Board**

This is essentially the opposite of Butler or Cross-Imp scoring, in that you play as a team but use pairs' scoring. It can be used in any form of teams (often used in less serious competitions).

On each board you get two points if you win it (i.e. if the sum of your NS and EW scores is positive), one for a draw (exactly the same score at each table), and none if negative. This is just like match-point scoring, but only two tables are being compared - what the rest of the field does is of no importance to you at Point-a-Board. For this reason your tactics should be much more like those at match-pointed pairs rather than at IMP-scored teams. Small differences matter a lot, meaning that over-tricks are very important, as is bidding the right game. If you score +430 in 3NT+1, and at the other table they played in 4S= for +420, you have won the board.

### **Aggregate Scoring**

A pairs' form of scoring, whereby each pair total their actual score on every board played.

It is important that all pairs play all boards, and also pairs must remain either North/South or East/West.

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