Accelerated Pairings

General

Accelerated pairings form an optional addition to Grading based pairings and must be used in conjunction with them. For example, in a 5-round event of over 32 players, or a 6-round event of over 64 players, it is possible (especially if there is a wide range of playing strengths) that two players may finish with perfect scores. The purpose of accelerated pairings is to make this very unlikely. Another reason is to avoid mismatches and possibly improve title norm chances.

In the first case acceleration should continue until no bottom half player remains on 100% but should not be done in the last two rounds even if all bottom half players have not 'fallen'. In the second case acceleration should be carried out for a fixed number of rounds. This number should be a minimum of three.

There are two separate principles involved in the system:

(a) The "acceleration" principle. The aim is to pair the higher graded (ie "top half") players together, and then to use the top half non-winners to wipe out the 100% scores of "bottom half" players as quickly as possible. Acceleration ceases when this is achieved or when there are only 2 rounds left, whichever comes first. The system assumes that lower graded players will not repeatedly beat higher graded players. Like any probability-based system, it can be upset by a sequence of unlikely results. This does not alter the fact that in the long run it is the system most likely to avoid joint winners on 100%.

(b) The "pairing by gradings" principle. This should be used throughout every round in an accelerated event. The aim is that throughout the tournament the opponents of each player will in each round have grades giving a grading difference near the average for the score group he is in for that round. This avoids the situation whereby a player may unluckily play the best (or worst) player in the score group in each round, and ensures that there are fewer games between players of greatly differing grades.

The accelerated system is likely to work well only if:

(a)   All, or nearly all, the players are graded.

(b)   There is a large grading difference (say, over 350) between top and bottom. It would therefore most likely be used in an Open and would probably not be used in a grading-restricted event

(c)   The number of players is greater than 2^r, where r is the number of rounds.

Basic acceleration

The system assumes that lower graded players will not repeatedly beat higher graded players. Like any probability-based system, it can be upset by a sequence of unlikely results. This does not alter the fact that in the long run it is the system most likely to avoid joint winners on 100%. It does this by pairing the higher graded players together in round 1, and then to use the top half non-winners to eliminate lower graded players on 100% as quickly as possible. Acceleration ceases when this is achieved or when there are only two rounds left whichever comes first.

The rules for seeded pairings are followed with the following additions.

1   Divide the players in grading order into four quarters, A, B, C, D. The 'top half' players are in quarters A and B. If the number of players is not a multiple of four act as follows. If the remainder is one or two enlarge the top half by two. If three enlarge the top half by two and the bottom half by 1.

2   In the first round, quarter A is paired against quarter B and quarter C is paired against quarter D. As normal the colour on board 1 is decided by lot (unless tournament regulations specify otherwise) and then alternates throughout.

3   For round 2 pairings, the score groups are, in order, (a) top half 1's (see 6), (b) bottom half 1's paired in grading order against an equal number of the highest-graded top half players who did not win in round 1 taking account of colour requirements, (c) bottom half ½'s and any remaining top half ½'s , (d) bottom half 0's and any remaining top half 0's.

4   Acceleration continues with score groups (a) top half players with 100% (see 6), (b) bottom half players with 100% scores paired against the highest graded top half players due the appropriate colour in the next two lower score groups, (c) remaining players in normal separate score groups, until either there are no bottom half players with 100% scores or there are only two rounds to play, whichever comes first.

5   In all subsequent rounds, each score group contains only players with the same score, with the possible addition of floaters.

6   A floater from the top score group will be paired against the highest graded top half player who is a half point behind and is due the appropriate colour as normal. However this pairing will be broken if the number of bottom half players with 100% exceeds the number of top half players remaining in pairing group (b) above. In this case the top half player with 100% is paired against the highest rated bottom half player of the appropriate colour and the pairings then continue as detailed in 3(b) or 4(b) as appropriate.

Advanced Acceleration

In this method bottom half players within a half point of the lead are also paired against top half players. This method requires the top 'half' to be larger than the bottom so that there are sufficient players available to be paired against the bottom half within half point of lead. The 'top half' should contain 56-60% of the entrants.

1   Divide the players in grading order into four 'quarters', A, B, C, D. The 'top half' players are in quarters A and B. The top half should be an even number between 56% and 60% of the total entry.

2   In the first round, quarter A is paired against quarter B and quarter C is paired against quarter D. As normal the colour on board 1 is decided by lot (unless specified otherwise) and then alternates throughout.

3   For round 2 pairings, the score groups are, in order, (a) top half 1's, (b) bottom half 1's paired in grading order against an equal number of the highest-graded top half players who did not win in round 1 taking account of colour requirements, (c) remaining top half ½'s (see 7) (d) bottom half ½'s and top half 0's (see 6), (d) bottom half 0's and any remaining top half 0's.

4   Acceleration continues with score groups (a) top half players with 100% (see 6), (b) bottom half players with 100% scores paired against the highest graded top half players due the appropriate colour in the next two lower score groups, (c) remaining players in normal separate score groups, until the designated number of rounds have been played or either there are no bottom half players with appropriate scores or there are only two rounds to play, whichever comes first.

5   In all subsequent rounds, each score group contains only players with the same score, with the possible addition of floaters.

6   A floater from the top score group will be paired against the highest graded top half player who is a half point behind and is due the appropriate colour as normal. Similarly a floater from the next 'top half' score group will be paired against the highest graded top half player who is a half point behind and is due the appropriate colour as normal. However this pairing will be broken if the number of bottom half players with 100% exceeds the number of top half players remaining in pairing group (b) above. In this case the top half player with 100% is paired against the highest rated bottom half player of the appropriate colour and the pairings then continue as detailed in 3(b) or 4(b) as appropriate.

7   At this point it is worth counting the number of 'bottom half' ½'s and 'top half' 0's (or other appropriate scores in later rounds). If the former is greater then return to the previous step (b) and, working up from the bottom of the pairings made, substitute a 'top half' player of the appropriate colour who has scored 0 with the highest rated unpaired appropriate 'top half' who has scored ½. Repeat this process until you have sufficient 'top half' 0's to play the 'bottom half' ½s. If even this fails to produce sufficient players it may be necessary to promote the highest rated 'bottom halfs' into the 'top half' group.