ORGANISER'S GUIDE FOR GRAVITY RACING FORMATS

GRAVITY RACING FORMATS

INTRODUCTION

One of the most difficult decisions an Organiser of gravity racing events will face, when planning an event, is which racing format should be used to maximise the amount of time registered riders will actually have on the proposed course, as well as fitting the format into a sometimes very tight schedule.

There is no “one size fits all” format for racing, as the type of event, as well as the nuances of each event track, will place certain restrictions on which format will best suit the Organiser and the Officials, as well as creating the opportunity for riders to feel that they have had maximum runs compared to amount of registration monies paid.

This guide holds several of the most common formats used for gravity racing, with graphics and written explanations to give as full a description of the format as possible.

Formats are ever evolving, and in future years, either adaptation’s of these current formats or completely new formats, will exist, changing to suit the requirements of organiser’s who stage events in which all gravity disciplines are catered.

Even within these pages, there is a completely new format presented and explained, another proof of the ever changing domain of the Gravity Racing Event Organiser.

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THE CASCADING TREE

The Cascading Tree was developed by Tyler Johnson (AUS), being a merging together of two different formats, the Round Robin and an Elimination Tree.

The Cascading Tree is similar to an elimination tree with a repercharge, however small changes have been made to give racers a greater amount of races when compared to a standard elimination format.

Winners progress to the next branch/ heat, while losers of each round "cascade" to a completely new branch of every round. No matter if a rider wins or loses their respective heat, all riders get the same amount of races.

The Cascading Tree can be used for Dual (2 racers), Mass (4 racers) or Super Mass (6 racers). The table following demonstrates which riders are considered winners of a particular heat, and which are the losers of said heat, as well as which branch of the tree each, winners or losers, is designated.

Dual
1st place = winner
2nd place = loser

Mass
1st place = winner
2nd place = winner
3rd place = loser
4th place = loser

Super Mass
1st place = winner
2nd place = winner
3rd place = winner
4th place = loser
5th place = loser
6th place = loser

Following the diagram, you can see the winners progressing within their respective branch of the tree, while the losers "cascade" to form a new branch of the tree. By the final round, all racers will be racing riders of the same performance level on that particular day, ie: The finals are made up of the only racers that were winners in every preceeding round.

The consolation final is made up of the only racers that were winners of every race except the preceeding round. This pattern cascades all the way down to the bottom heat, which is the only heat made up of racers that lost every round.

The final round of racing determines the final positions of racers for that particular event, with no need to go back to a "qualifying time" to determine the final placings of all racers competing.

There is no chance of a "tie", as every racers final position is gained via actual races, not a "timed" or "points" based result.The Single Elimination format is the most basic of all racing formats, and can be adapted to any size of racing fields, ie, any number of racers registered to compete at a gravity event.

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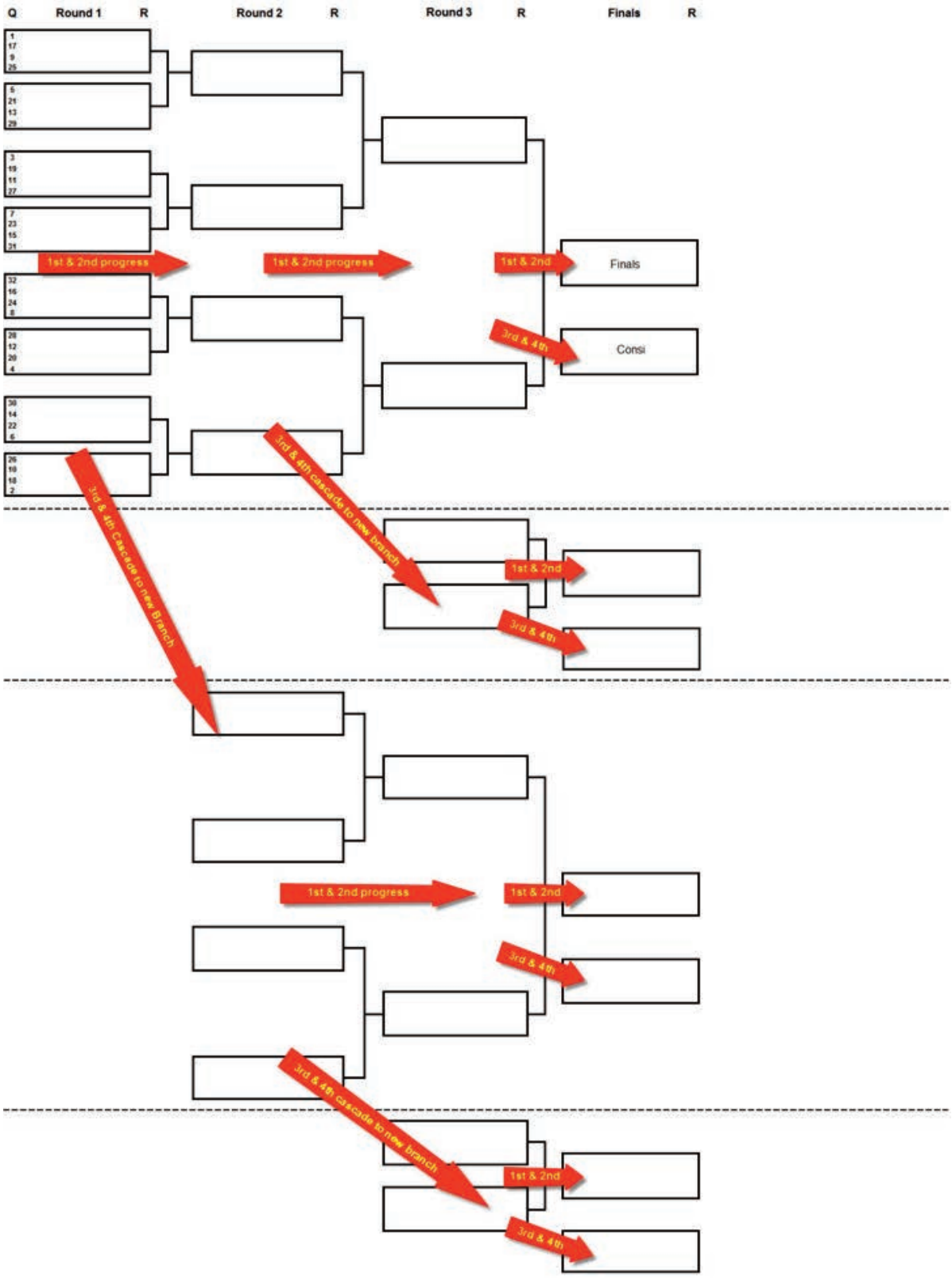
32 MAN CASCADING TREE DIAGRAM



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SINGLE ELIMINATION

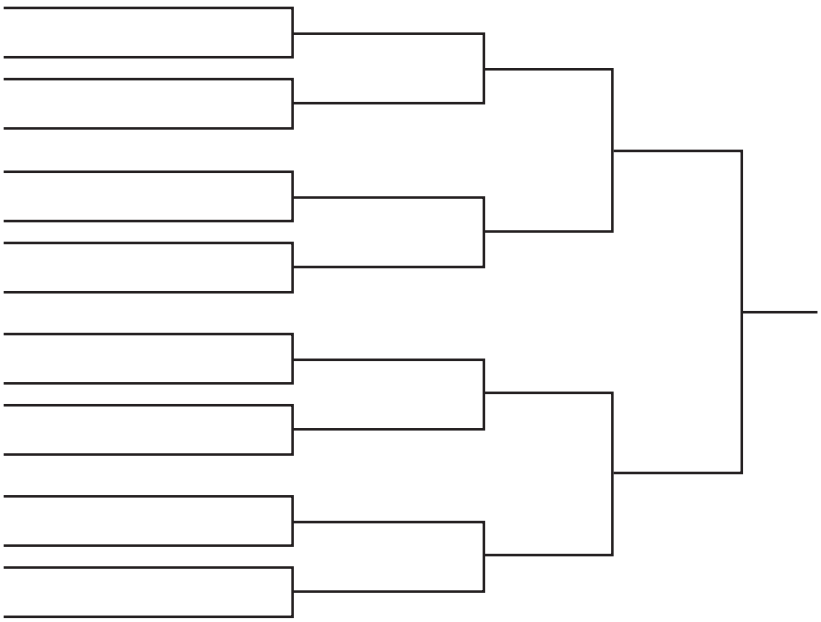
The Single Elimination format is based on an even number of racers competing, as half the field will be eliminated after the first round. An event may have 32 racers competing in the first round, or heat, with each heat containing 2, 4 or 6 racers, dependent upon which type of size format is being used, ie, Dual (2) racers, Mass (4) racers, and Super Mass (6) racers.

After the first round, 16 of the original 32 racers are eliminated, at which time those racers no longer take part in any aspect of the event.

The 16 racers who won their first round heats, continue on to the next, or second round of the event, at which time 8 winners will progress to the third round, and the 8 riders who lost their second round heats will no longer take part in any aspect of the event.

This pattern continues, until there is one rider who becomes the overall winner for that particular gravity racing event. Single Elimination formats are excellent for events which either have a time constraint which does not allow for more time consuming formats to be implemented, or extremely large numbers of registered racers.

The down side of this particular format, is that some racers whom have paid full registration to enter the event, will be out of the event after the first round. The diagram below is a standard elimination tree. As you can see, after each round, half of the racers will be eliminated from the event.



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DOUBLE ELIMINATION: REPERCHARGE VARIATION

The Double Elimination format is the same as the Single Elimination format, except for one variation; the losers from the first round of heats, instead of being eliminated from the event, are given a second chance to redeem themselves and continue racing, with the potential to be the eventual event winner.

The winners from the first round, form the “main event” branch of the format. The losers from the first round form the “repercharge” branch of the event. This is the only time that losers from any of the heats are given a second chance, as losers from the second heat onwards, including the finals, in both the main event and the repercharge, will be eliminated and take no further part in the racing.

This process of elimination will continue through to the final race of the day, for both branch’s of the event. If an event is based on the dual style of racing, the winner of the repercharge branch and the winner of the main event will race to decide the overall event champion.

If a mass format is being raced, the top two main event finalists and the top two repercharge finalists race to decide the top four positions for the event. In a double elimination format, there is no need for a consolation final to decide the placings of the top four, if a dual format, or top eight if a mass format, as the positions/rankings of the event are decided by the existence of the two branch’s.

To demonstrate how this works, we’ll use the dual format, working from the first and second place winners backwards towards the lowest ranked racer: regardless of which racer from which branch of the event wins, or comes second, the third place will go to the next highest ranked racer from the main event branch.

Fourth position will go the next highest ranked racer from the repercharge branch, fifth will go to the next main event branch racer, and the sixth position will go to the next racer in the repercharge branch.

This criss crossing of position/rankings continues through to the last positioned racer in the event, in order to establish the events final rankings.

The diagram of the following page shows a standard “repercharge” style event sheet. The winners from round one are placed in the top 16 positions for heat two, and the first round losers occupy the bottom 16 positions. Both branch’s continue as per an elimination format, culminating in a final event winner being the winner of a finals race between the top two racers from each branch.

Some Double Elimination formats may ask the winner to win twice in a finals race to establish the eventual event champion.

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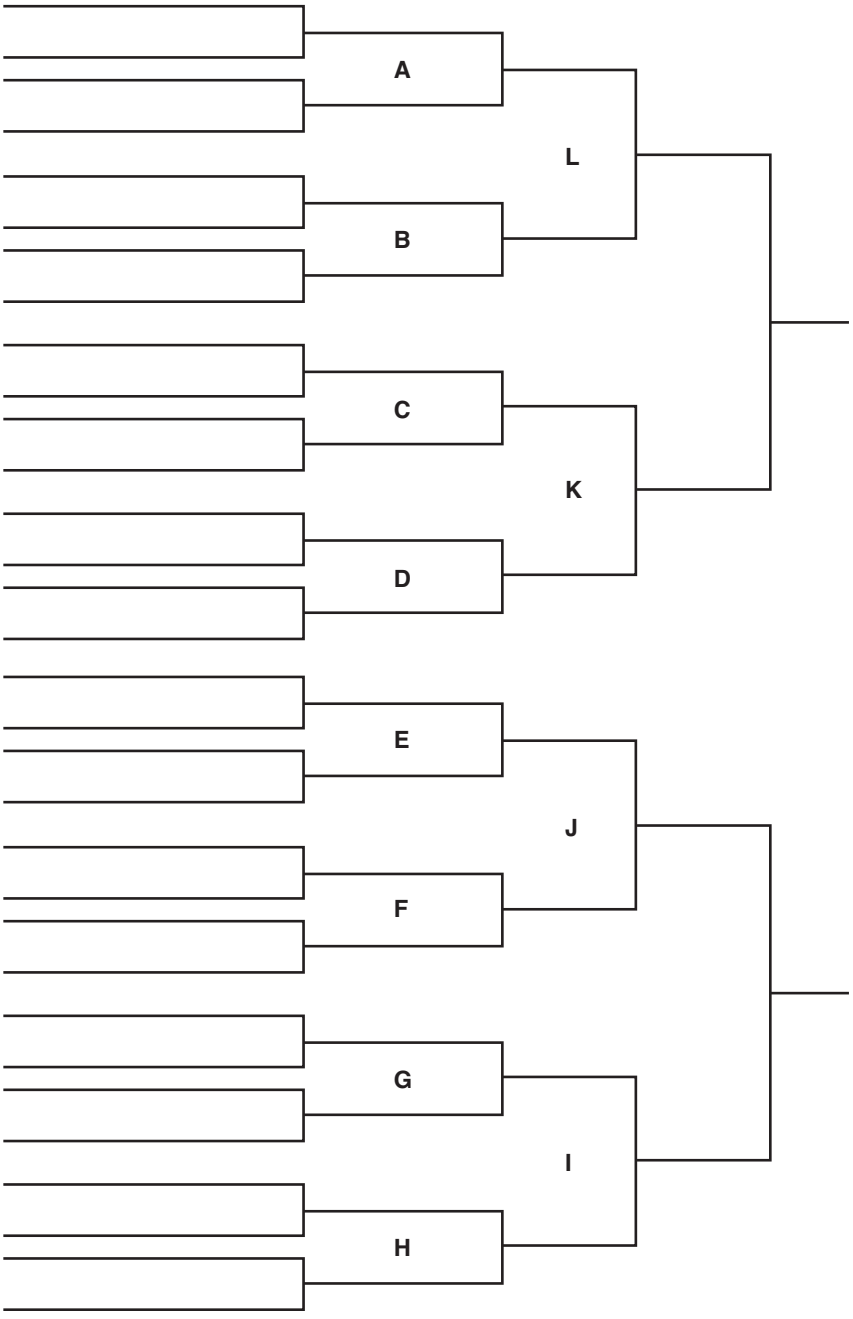
CHAMPIONSHIP BRACKET



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ROUND ROBIN

The Round Robin format is used by many organisers, of various racing sports, to maximise the amount of time racers have on their respective event courses. The round robin format is a “points” based format, where racers race in every round of an event, against different riders in each round, gaining points for each position they attain in each round.

There are two disadvantages to the round robin format: quite often a number of racers will end up with the same amount of points at the end of the event, resulting in a “tie” for some final ranking positions. The other disadvantage is not being able to ensure that racers don’t race the same competitor more than once.

If using a round robin format, there are several ways to form an impartial first heat/round, and by that we mean that riders of greater ability are not intentionally placed in heats with racers of lesser skill and ability.

Events can be pre-planed, by using this method of “doctoring” the heats, to ensure certain racers will place well in the final points tally for the event.

Some organiser’s will use the order in which racers register for an event as the first round positions in the heats. Others will use the “pull a name out of a hat” method, which can be done at the racers briefing, to show impartiality.

The ensuing rounds, unfortunately, are not as simple. There are some mathematical software programs which will randomly pick the racers positions for the following heats/rounds, but there is still a small percentage chance that two, or more, racers will race against each other in a future heat. It is then up to each organiser to decide if these are acceptable scenario’s, to maximise racers time on the track.

The table below is a sample of a standard round robin heats sheet. Column 1 is the first round, column 2 is the second round, etc. No formula has been used to establish racer positions in each round, this is simply an example. This example is based on a dual format, of two racers competing against each other, ie Smith/Brennan, Lally/Phillips, Brittain/Duffield.

All six racers can be on the event course, at the same time, if a super mass format is being staged to accommodate as many people on the track at the same time, to get through the number of racers registered. The final placings for round 1 may be Lally 1st, Brennan 2nd, Brittain 3rd, Duffield 4th, Phillips 5th, Smith 6th. Due to the event being a “Dual” event, the three racers who gain maximum points would be Brennan, Lally, Brittain.

Smith, Phillips and Duffield would gain minimal points. This is not directly due to their heat placing, it is based on how they placed against the other racer whom they were partnered to for that round.

Example Round Robin Heats Sheet

Round 1	Round 2	Round 3
Smith	Smith	Smith
Brennan	Lally	Brittain
Lally	Duffield	Duffield
Phillips	Phillips	Lally
Brittain	Brennan	Brennan
Duffield	Brittain	Phillips

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ROUND ROBIN

Below is another variation on the Round Robin format, a variation which breaks up the number of racers into “blocks” where the number of blocks is determined by how many racers have registered. This system works by racers racing against each other two at a time.

After the first round of racing, the Hex rotates one place, so that each racer races each person in the block once. This system of round robin still allows dual, mass or super mass racing to occur.

If mass, then two racers from block 1 will race two riders from block 2. Two racers from block 3 will race two racers from block 4, so on and so forth, until all racers have raced each other once, or the event time frame has meant the finishing of the days racing.

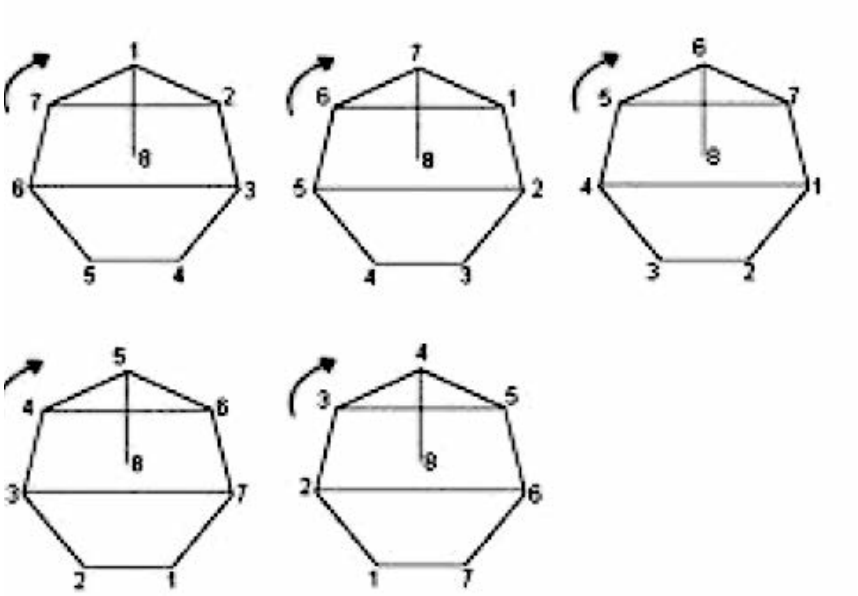
The method/s of creating the first round racer placements, can also be used to determine the racers contained within each block. The above blocks allow eight rounds to occur, before using a mathematical software program, or any other method, to create the next series of blocks/racers.

This variation can also be used to accommodate odd numbers of racers in each block, ie, seven racers as opposed to eight. If each block contains seven racers, remove the eight spot from the cycle. This now means that a “bi” will be had by all racers within the block once, and once only, during duration of this series of races.

HEAT POSITION POINTS

In Round Robin, or similar points based formats, there is no set rule for point allotment to a specific position. In a four man heat, 1st could equal 1 point, 2nd could equal 2 points, etc. This points format would indicate that the racer with the lowest amount of points at the end of the round robin would be the eventual winner. Second lowest points racer would come second.

This point format can also be reversed, so that the highest point scorer for the event is the eventual winner. Virtually any form of point allotment can be applied to any point based racing format, as there will always be ties which need to be broken with racers acquiring the same amount of points as other racers.



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BREAKING TIES

There is no mathematical formula which can eradicate the scenario of tie's occurring in a points based system used for racing formats, regardless of the type of event/sport being played/raced.

After looking at possible alternatives, and wanting the alternatives to be easily understood by rider's, organiser's and spectators alike, here is a suggestion which can be implemented to reach a suitable breaking of ties, either in the top finals positions of said event, as well as the lower rankings.

Going into an 8 man final, ie, semi final into final race tree to decide top rankings, with a number of riders tied in 8th position, a "shootout" will be had to decide which rider will fill the 8th position, with the 9th, 10th, etc, positions also being decided based on where riders finish in the "shootout" race.

If a large number of riders are tied, ie, 5 or more, the "shootout" will still occur, however it will be run over the number of heats required to reach a conclusion of positions. The "shootout" would be based on the final positions the riders attain during the "shootout", not a points based conclusion.

This principal can be applied to any number of positions which the finals race tree is based upon, ie, 8 man, 16 man, etc. Lower positions, which will not effect the top finals positions, will be decided by a "countback" of highest positions gained by those riders during the event, ie, whichever rider had the greater points during his/her heat, they would fill the tie-break position in question.

This can be done by going back through the heats, starting with the first heat directly behind the tied position being decided, until a result is achieved. If timed qualifiers were run, those qualifying times will be used as the tie-break protocol.

A timed qualifying series may be staged at the beginning of an event, regardless of racing format, ie, Round Robin, Single Elim, Double Elim, Cascade Tree, in order to "seed" riders into the 1st Round positions, or may simply be staged as a tie-break mechanism, if required.

A very important aspect for organiser's to remember, when it comes to time-frames for "shootouts", is the logistics of getting riders back to the top of the hill as quickly as possible plus the actual time it takes to stage a "shootout", as too much time taken can have a very negative effect on the remainder of the event.

There are a greater number of formats which are adopted for sporting events, however, the above examples are the most commonly used for gravity racing, and using the creation of the Cascading Tree as an example, it is obvious that the types of formats available to organiser's is going to grow, moving into the future.