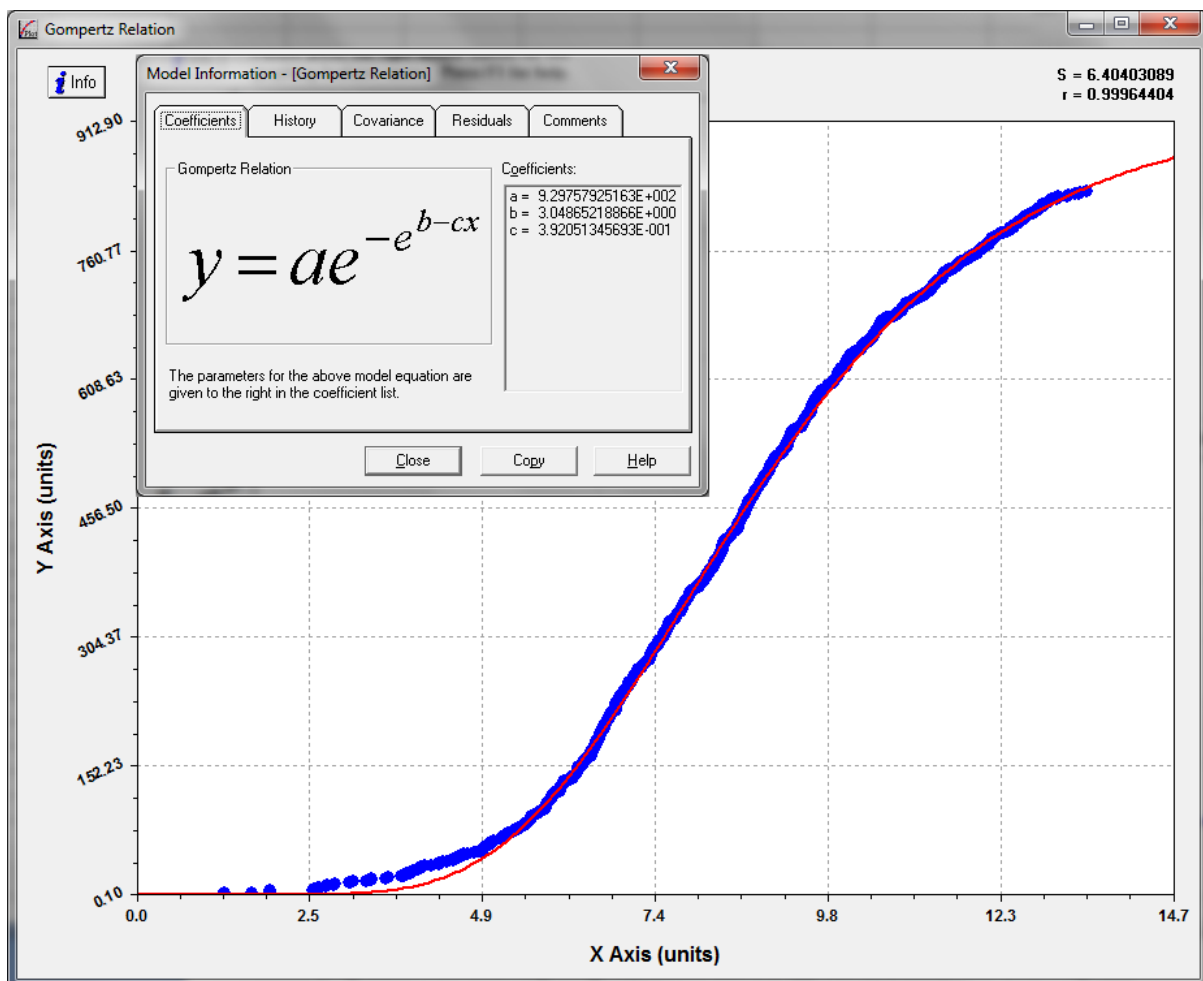


Raza Point score table for IPC Athletics

Raza point score table is the new solution that is used for IPC athletics combined events and started in March 2010.

The Raza point score table is based on the following statistical analysis:

- Data from Paralympic Games and World Championships from 2000 and onwards has been used as the basic platform
- IPC World ranking from 2004 and onwards was also used to map trends for each class
- Each event and class had their own specific trend
- A common statistical model*** was used to map each events trend
 - This statistical model was applied to all classes and converted into 1000 points for each combine class
 - It takes into account population size of each class and the performance based on population size
- Every year there will be a review and analysis of results and the point score table will be updated
- Compared to previous models for the point score table new World Records and single outstanding performance will have very little impact (if any) to adjustments of the point score table



*** Explanation about the Statistical Model Used

Sigmoid function:

Many natural processes and complex system learning curves display a history dependent progression from small beginnings that accelerates and approaches a climax over time. A sigmoid curve is produced by a mathematical function having an "S" shape.

Gompertz function:

A Gompertz curve or Gompertz function, named after Benjamin Gompertz, is a sigmoid function. It is a type of mathematical model for a time series, where growth is slowest at the start and end of a time period.

Revisions:

Shot Put			
MSP	F32	WSP	F32
MSP	F33	WSP	F33
MSP	F34	WSP	F34
MSP	F35	WSP	F35
MSP	F36	WSP	F36
MSP	F37	WSP	F37
MSP	F38	WSP	F38
MSP	F42	WSP	F42
MSP	F44	WSP	F44
MSP	F46	WSP	F46
MSP	F52	WSP	F52
MSP	F53	WSP	F53
MSP	F54	WSP	F54
MSP	F55	WSP	F55
MSP	F56	WSP	F56
MSP	F57	WSP	F57
MSP	F58	WSP	F58

Discus Throw			
MDT	F32	WDT	F35
MDT	F33	WDT	F36
MDT	F34	WDT	F37
MDT	F35	WDT	F51
MDT	F36	WDT	F52
MDT	F37	WDT	F53
MDT	F38	WDT	F54
MDT	F51	WDT	F55
MDT	F52	WDT	F56
MDT	F53	WDT	F57
MDT	F54	WDT	F58
MDT	F55		
MDT	F56		
MDT	F57		
MDT	F58		

Javelin Throw			
MJT	F33	WJT	F33
MJT	F34	WJT	F34
MJT	F35	WJT	F52
MJT	F36	WJT	F53
MJT	F37	WJT	F54
MJT	F38	WJT	F55
MJT	F52	WJT	F56
MJT	F53	WJT	F57
MJT	F54	WJT	F58
MJT	F55		
MJT	F56		
MJT	F57		
MJT	F58		

Table 1: Classes Driven Through Master Equations

The Raza System has gone through some vigorous changes since its introduction in March 2010. One of the most important breakthroughs is the introduction of a master equation for combined class groups. These master equations are then used to drive the sub equations for the classes that are within the combined class group.

- The latest Revision of the System (Version 5) has the above classes (Table 1) which are derived using master equations.
- The master equations were derived using a similar method already explained but was applied to all valid class combinations that the IPC has defined for the 2011 World Championships and the 2012 Paralympic Games.
- Factors such as historic change in implement weights and their effects on World Records are also analysed in this latest revision.
- Natural progressions of best performance over the past years are studied in depth and recent performances are weighted which then form the basis of computing sub equations.

A graphical illustration of the combined classes and the implements weights can be shown by means of a matrix. The matrix below for Shot, Javelin and Discus for both men and Women also includes the weights of implements. All valid combinations are marked by "x" in the grid and each set of these "x" has one major equation.

