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DATABASES AND FUNCTIONAL MATRICES USED IN SPORT PHENOMENON. TREND/REGRESSION TYPE

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Abstract

This paper proposes the processing of sportive database: anthropometric parameters, cardiac resistance, oxygen level, etc, using functional matrices. For this purpose we shall use the XY Scatter functions from the existing soft and Trend/ Regression Type in order to obtain law of variation for each parameter, even correlation between them. We shall establish if the database is formed in the correct manner, using the dispersion cloud and R, the reliable index. After measuring the parameters for the study the results will be set in functional matrices as $\mathbf{F}(m, n)$, m- number of lines (number of studied subjects) and n- number of columns (number of studied parameters). Using the Office Excel 2007 Software for the used database, according to XY Scatter Functions- Trend/ Regression Type, we can determine the mathematical laws of variation. The Trend Line gives us the possibility to visualize the expression of the laws, the variation of the parameters, the trend- maximum and minimum, sportsman "area" of the parameter included./1/

It is to determine the dispersion cloud for the real graphic of variation and the reliable index R, due to Trend Line Software for each type of law of variation. This R, the reliable index, shows the trainer or the technician the fairness of the method, of the measurements and of the principle of the method. It shows all of these to the trainer and even to the sportsman.

Key words: functional matrices, databases, sportive phenomenon, Trend/ Regression Type, dispersion cloud

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