Readme of the analysis files

## 1) Clustering

This folder contains the Excel file *‘r\_&\_Z\_values’*, which reports the correlation coefficients (r) and their corresponding Z-transformed values for each computed between the following variable pairs: Strike Duration & Impact Speed, Strike Duration & Strike Amplitude, and Impact Speed & Strike Amplitude.

The Statistica files *‘Z-values\_Kmean-3’* include the spreadsheets and the results of the clustering analysis (k-means, k = 3) performed on the Z-transformed data

## 2) Regression 3D

This folder contains the MATLAB code (Script\_Plot\_3D\_Regression) used to generate 3D regression plot based on the data provided in the Excel file. The *‘Figure’* subfolder includes the resulting 3D regression plots in various formats.

## 3) Regression 1-Participant Each cluster

This folder contains regression plots for three individual participants, each representing a different cluster. The figures are available in various formats.

## 4) PCA

This folder contains the results of the Principal Component Analyses (PCA) conducted separately for each of the three clusters using JASP. The initial data are contained in CSV files.

## 5) Coefficient of Variation

This folder includes the ANOVA analysis related to the coefficient of variation for the following movement parameters:

* *Strike Amplitude*: *Stat\_Coefficient-Variation\_Strike\_Amplitude* (JASP and CSV files)
* *Impact Speed*: *Stat\_Coefficient-Variation\_Impact\_Speed* (JASP and CSV files)
* *Strike Duration*: *Stat\_Coefficient-Variation\_Duration* (JASP and CSV files)

## 6) Cluster Performance

This folder contains the ANOVA results on spatial error across the three clusters, in the JASP file *‘Clusters\_Performance’*. It also includes the Excel and CSV datasets used for the JASP analysis.

## 7) Independence Spatio-temporal & Motor Strategies

This folder includes the Excel spreadsheet containing the Chi-square analysis assessing the independence between spatiotemporal strategies and motor coordination strategies.