

# **MUSIC GENRES CLASSIFICATION AND SIMILARITIES BETWEEN SONGS**

By Stefano De Filippis

Advanced Multivariate Statistics

Music has always been a kind of art able to entertain people. It could be done in different ways and with different instruments, leading to the creation of new types of genres. Music genres could be easily identified by an expert human ear. However, it is not always possible to have an expert able to identify them, for this reason it may be interesting and useful to investigate how to classify songs. In order to do so, it is possible to measure sounds with technical variables describing rhythm, intensity, loudness and also timbre. This type of analysis is useful to understand how the probability to hear a specific song genre changes in relation to the variables and which are the most relevant able to do that, allowing to create playlist. In addition, the analysis continues with a mapping of the songs able to investigate some similarities between them and it shows some interesting results.