# Bayesian Meta Analysis

Code

# 1 Introduction

We use the data set fifa to evaluate the value of players. There are many indicators in the data set, and the indicator selection criterion is an indicator that everyone is generally familiar with.

# 2 Methods

## 2.1 T test

A t-test is an inferential statistic used to determine if there is a significant difference between the means of two groups and how they are related. T-tests are used when the data sets follow a normal distribution and have unknown variances.

## 2.2 Analysis of variance

Analysis of variance (ANOVA) is a method to analyze the difference of numerical variables among different attribute variables. ANOVA is a method proposed by the British statistician R.A. Fisher to test the significance of the difference between the means of two or more samples. Its basic idea is to divide the total variation (that is, the total variance) of the measurement data into treatment (between-group) effects and error (intra-group) effects according to the source of variation, and make an estimate of its quantity, so as to determine the influence of experimental treatment on the research results the size of. The steps of variance analysis are: total sum of squares decomposition, total degrees of freedom decomposition and F test. If the F test is significant, multiple comparisons can be performed to find out which treatments have differences between pairs.

## 2.3 Correlation analysis

Correlation analysis is a basic method of data analysis, which can be used to find the correlation between different variables. Correlation refers to the similarity of changes between data, which can be described by correlation coefficient. Finding correlations can help you predict the future, and discovering causation means you can change the world.

## 2.4 Linear Regression analysis