**Introduction**

Wine Quality evaluation is a main part of the certification process of wines and can be used to improve wine making and to stratify wines such as premium brands or pricing. And this might be also important part of our better lifestyle to choose good quality wine based of facts.

**Red Wine Quality Data Set**

I found the available dataset about red wine quality from the UCI machine learning repository (<https://archive.ics.uci.edu/ml/datasets/wine+quality>). The dataset contains a total of 12 variables such as critic acid levels, pH, alcohol, and so on. There was also a quality measure between 0 and 10. These were recorded for 1,599 observations.

**Hypothesis: What factors makes better quality of wine?**

H0: None of the variables effects on the quality of wines.

H1: The variables effects on the quality of wines and make a wine ‘low’, ‘mid’ and ‘high’ quality of wines

**Justification for the inclusion of the control**

For understanding how much each attribute correlates with the quality score of wine compute the standard correlation coefficient between every pair of attributes. The correlation coefficient ranges from –1 to 1. When it is close to 1, it means that there is a strong positive correlation; for example, the ‘quality’ value tends to go up when the ‘alcohol’ goes up. When the coefficient is close to –1, it means that there is a strong negative correlation; you can see a small negative correlation between the ‘volatile acidity’ and the ‘quality’ value. Finally, coefficients close to zero mean that there is no linear correlation.

**Results (brief discussion, and either regression table or the plot of regression coefficients with credible intervals)**

**Regression table (estimates, standard errors, 0,95 credible intervals)**