**Conclusion: Has a strong positive correlation**

**Correlation analysis of all class levels of five projects**

**For Metric 1 Statement Coverage and Metric 3 Mutation Score (a total of 1063 sets of data)**

**Pearson correlation coefficient is 0.7476**

**Spearman correlation coefficient is 0.7474**

**For Metric 2 Branch Coverage and Metric 3 Mutation Score (a total of 899 data sets)**

**Pearson correlation coefficient is 0.7707**

**Spearman correlation coefficient is 0.7372**

**Correlation analysis of the project lang class level (the result of lang is different from the conclusions of the other four groups)**

**For Metric 1 Statement Coverage and Metric 3 Mutation Score (a total of 89 sets of data)**

**Pearson correlation coefficient is -0.0564**

**Spearman correlation coefficient is -0.0137**

**For Metric 2 Branch Coverage and Metric 3 Mutation Score (a total of 75 sets of data)**

**Pearson correlation coefficient is -0.0847**

**Spearman correlation coefficient is -0.0712**

**Correlation analysis of project codec class level**

**For Metric 1 Statement Coverage and Metric 3 Mutation Score (52 data sets in total)**

**Pearson correlation coefficient is 0.8027**

**Spearman correlation coefficient is 0.4155**

**For Metric 2 Branch Coverage and Metric 3 Mutation Score (47 data sets in total)**

**Pearson correlation coefficient is 0.8674**

**Spearman correlation coefficient is 0.5662**

**Correlation analysis of project collections**

**For Metric 1 Statement Coverage and Metric 3 Mutation Score (a total of 264 sets of data)**

**Pearson correlation coefficient is 0.4510**

**Spearman correlation coefficient is 0.4939**

**For Metric 2 Branch Coverage and Metric 3 Mutation Score (a total of 206 sets of data)**

**Pearson correlation coefficient is 0.3714**

**Spearman correlation coefficient is 0.3066**

**Correlation analysis of project configuration class level**

**For Metric 1 Statement Coverage and Metric 3 Mutation Score (a total of 177 sets of data)**

**Pearson correlation coefficient is 0.8266**

**Spearman correlation coefficient is 0.6930**

**For Metric 2 Branch Coverage and Metric 3 Mutation Score (a total of 143 sets of data)**

**Pearson correlation coefficient is 0.7530**

**Spearman correlation coefficient is 0.6533**

**Correlation analysis of project jfree class level**

**For Metric 1 Statement Coverage and Metric 3 Mutation Score (a total of 481 data sets)**

**Pearson correlation coefficient is 0.7996**

**Spearman correlation coefficient is 0.8089**

**For Metric 2 Branch Coverage and Metric 3 Mutation Score (a total of 428 sets of data)**

**Pearson correlation coefficient is 0.8627**

**Spearman correlation coefficient is 0.8691**