30.05.2021

Method of least squares

1. Fitting of a straight line:
2. Fitting of a parabola:
3. Fitting of an exponential curve:
4. Fitting of an exponential curve:

Fitting of a straight line

Normal equations are:

Fitting of a Parabola:

Normal equations are:

Fitting of an exponential curve:

Normal equations are:

After solving for and , take antilog to get back the original values.

Mean

Variance

Covariance

Correlation

Where

**Karl pearson’s coefficient of correlation**

31.05.2021

Rank correlation:

Multiple correlation formula:

Regression line for on :

Where and

Regression line for on :

Where

**Multiple Regression:**

Regression equation of on and :