

Results

From analyzing each regression model, we were able to come up with the Test MSE value. By comparing them, we can determine which method produced the smallest TEST MSE value, and therefore the best regression model.

Table of TEST MSE values of each regression is shown here:

RegressionMethods	MSE
OLS	0.0501
Ridge	0.0480
Lasso	0.0515
PCR	0.0475
PLSR	0.0465

Table 1: Test MSE of all regression methods

According to the table, PLSR has the smallest Test MSE is 0.0464641.

Therefore, we can conclude that among all the regression methods we considered, PLSR yields the smallest TEST MSE and thus is the best model for our given dataset.