

Elastic Net Regression...

Elastic Net Regression is the combination of Lasso Regression and Ridge Regression.

It is useful when you don't know about the data. You don't know that which columns are having more usefulness with the output column or not. It is also beneficial to be used when the multicollinearity within the column in the data exist. It will provide you the best results.

$$\text{Loss Function} = \frac{\sum_{i=1}^n (Y_i - \bar{Y})(X_i - \bar{X}) + \alpha \|w\|^2 + b \|w\|}{\sum_{i=1}^n (X_i - \bar{X})^2}$$

$$\lambda = a + b$$

$$l1\text{-ratio} = a/a+b$$

Spiral