Penalize Regression R Package

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1 Introduction

2 Penalize Regression Method

3 Algorithms

Introduction with penalize regression

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Penalize Regression - Ridge

Penalize Regression - Lasso

Penalize Regression - Elastic Net

Penalize Regression - MCP

Penalize Regression - SCAD

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Gradient Descent Algorithm (GD)

Coordinate Descent Algorithm (CDA)

Projected Gradient Descent Algorithm (PGD)

Fast Iterative Soft-Thresholding Algorithm (FISTA)

Newton-Raphson Algorithm (NR)

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Functions

```
sq.loss <- function(y) {
   y.bar <- mean(y)
   sum((y - y.bar)^2)
}</pre>
```

• We construct the following procedure for regression, where we apply a loss measure sq.loss function to the argument branch function.

Q & A

Thank you:)