Package 'pros'

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Title Penalized Regression on Steoroids

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Description This is a project for STAT8053 at the University of Minnesota.

Depends R (>= 3.5.1)

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Encoding UTF-8

LazyData true

RoxygenNote 6.1.1

R topics documented:

`cv.pros` *Cross Validation*

Description

The K-fold cross-validation function

Usage

```
cv.pros(X, y, K_fold, alpha, lambdas, algorithm = "subgradient_cd")
```

Arguments

`X`	the data matrix
`y`	the vector response
`K_fold`	partition size
`lambdas`	lambda values to be evaluated
`algorithm`	

Value

A class `cv_pros` with

- `best_lambda` the best lambda.
- `lambdas` the lambda values
- `risks` the cross-validation risks

`predict.cv_pros` *CV Prediction*

Description

The Prediction function

Usage

```
## S3 method for class 'cv_pros'
predict(cv_prosObj, X_new)
```

Arguments

`cv_prosObj`	an object of class `cv_pros`
`X_new`	the data matrix

Value

A `vector` of predictions

`predict.pros` *Prediction*

Description

The Prediction function

Usage

```
## S3 method for class 'pros'
predict(prosObj, X)
```

Arguments

`prosObj`	an object of class `pros`
`X`	the data matrix

Value

A `vector` of predictions

pros *Fit*

Description

The fit function for a specific lambda value

Usage

```
pros(X, y, alpha, lambda, algorithm = "subgradient_cd")
```

Arguments

X	the data matrix
y	the vector response
alpha	the vector response
lambda	A lambda value
algorithm	

Value

A class pros with

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