RcppRidge Package Documentation

May 25, 2021

`RcppRidge-package` *A short title line describing what the package does*

Description

A more detailed description of what the package does. A length of about one to five lines is recommended.

Details

This section should provide a more detailed overview of how to use the package, including the most important functions.

Author(s)

Your Name, email optional.

Maintainer: Your Name <your@email.com>

References

This optional section can contain literature or other references for background information.

See Also

Optional links to other man pages

Examples

```
  ## Not run:
     ## Optional simple examples of the most important functions
     ## These can be in \dontrun{} and \donttest{} blocks.

## End(Not run)
```

elbow_plot_kmeans *Spectral clustering*

Description

Spectral clustering

Usage

```
elbow_plot_kmeans(x, kmax = 15)
```

Arguments

x	First value

Value

vector of groups

fit_rr *Fit a single ridge regression model*

Description

Fit a single ridge regression model

Usage

```
fit_rr(X, y, lambda)
```

Arguments

X	First value
y	Second value
lambda	

Value

Vector of penalised regression coefficients

get_ocv *Calculate leave one out cross validation error (OCV)*

Description

Calculate leave one out cross validation error (OCV)

Usage

```
get_ocv(X, y, lambda)
```

Arguments

X	First value
y	Second value
lambda	

k_means *K means*

Description

K means

Usage

```
k_means(x, centers = 5)
```

Arguments

x	First value

Value

vector of groups

`optim_rr` *Find the optimal regularisation parameter through optimised leave one out cross validation*

Description

Find the optimal regularisation parameter through optimised leave one out cross validation

Usage

```
optim_rr(X, y, lams)
```

Arguments

`v1`	First value
`v2`	Second value

Value

Product of v1 and v2

`par_reg` *Fit a ridge regression model to multiple groups in parallel*

Description

Fit a ridge regression model to multiple groups in parallel

Usage

```
par_reg(X, y, lams, idx)
```

Arguments

`X`	First value
`y`	Second value
`lams`	First value
`idx`	Second value

Value

List

pca *PCA*

Description

PCA

Usage

```
pca(x, sigma = 1.5)
```

Arguments

x	First value

Value

PC1 and 2

plot_clusters *Spectral clustering*

Description

Spectral clustering

Usage

```
plot_clusters(data, clusters)
```

Arguments

x	First value

Value

vector of groups

rcpp_hello_world *Simple function using Rcpp*

Description

Simple function using Rcpp

Usage

```
rcpp_hello_world()
```

Examples

```
## Not run:
rcpp_hello_world()

## End(Not run)
```

rmvn_omp *Sample from a multivariate Gaussian*

Description

Sample from a multivariate Gaussian

Usage

```
rmvn_omp(n, mu, sigma)
```

Arguments

n	First value
mu	Second value

Value

matrix

`spectralClustering` *Spectral clustering*

Description

Spectral clustering

Usage

```
spectralClustering(x, c = 1, k = 10)
```

Arguments

x	First value

Value

vector of groups

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