Package 'permutes'

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Title Permutation Tests for Time Series Data

Version 0.1

Description The permutes package helps you determine the analysis window to use when analyzing densely-sampled time-series data, such as EEG data. The package uses permutation tests to identify the timepoints where significance of an effects begins and ends, and plots the resulting p-values in a heatmap for your future perusal.

Depends lmPerm, ggplot2, viridis

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Encoding UTF-8

LazyData true

RoxygenNote 6.0.1

R topics documented:

`permu.plot` *Create a heatmap of the results of permutation testing*

Description

Create a heatmap of the results of permutation testing

Usage

```
permu.plot(data, breaks = NULL)
```

Arguments

`data`	Output of permu.test. You may want to subset it if you want to simulate zooming in.
`breaks`	The granularity of the labels of the x axis. Pass 'unique(data[,2])' to get a tick for every timepoint. Combine this trick with subsetting of your dataset, and perhaps averaging over all your dependent variables, to 'zoom in' on your data to help you determine precisely where significance begins and stops to occur.

Value

A ggplot2 object containing a heatmap of p-values.

`permu.test` *Permutation tests for time series data.*

Description

Permutation tests for time series data.

Usage

```
permu.test(formula, data, parallel = FALSE)
```

Arguments

`formula`	A formula of the following form: 'outcome ~ predictors | timepoint variables'. Multivariate outcomes (e.g. 32 EEG electrodes) are supported; use 'cbind(Fp1,Fp2,etc) ~ predictors | timepoint'.
`data`	The dataset referencing these predictors.
`parallel`	Whether to parallelize the permutation testing using plyr's 'parallel' option. Needs some additional set-up; see the plyr documentation.

Value

A dataframe of p-values.

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