Package ‘meifly’

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Type Package

Title Interactive model exploration using GGobi

Description Exploratory model analysis. Fit and graphical
    explore ensembles of linear models.

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URL https://github.com/hadley/meifly

BugReports https://github.com/hadley/meifly/issues

Imports plyr, leaps, MASS,

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NeedsCompilation no

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findmodels

```r
calc_models <- function(...) {
  # S3 method for class 'ensemble'
  coef(ensemble, ...)}
```

Arguments

- `model` ensemble of models
- `...` other arguments ignored

findmodels

```r
findmodels(modeltype = "lm", dataset, pattern)
```

Arguments

- `modeltype` model class
- `dataset` if specified, all models must use this dataset
- `pattern` pattern of model object names to match
fitall  

Fit all combinations of x variables ($2^p$).

Description

This technique generalises fitbest. While it is much slower it will work for any type of model.

Usage

fitall(y, x, method = "lm", ...)

Arguments

- y: vector y values
- x: matrix of x values
- method: name of method used to fit the model, e.g. lm, rlm
- ...: other arguments passed on to method

Examples

y <- swiss$fertility
x <- swiss[, -1]
mods <- fitall(y, x, "lm")

fitbest  

Use the leaps package to generate the best subsets.

Description

Use the leaps package to generate the best subsets.

Usage

fitbest(formula, data, nbest = 10, ...)

Arguments

- formula: model formula
- data: data frame
- nbest: number of subsets of each size to record
- ...: other arguments passed to regsubsets

Examples

y <- swiss$fertility
mods <- fitbest(Fertility ~ ., swiss)
**lmboot**  
*Generate linear models by bootstrapping observations*

**Description**
Generate linear models by bootstrapping observations

**Usage**
```r
lmboot(formula, data, n = 100)
```

**Arguments**
- `formula`: model formula
- `data`: data set
- `n`: number of bootstrapped data sets to generate

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**meifly**  
*Interactive model ensemble exploration.*

**Description**
Interactive model ensemble exploration.

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**residuals.ensemble**  
*Calculate residuals for all models in ensemble.*

**Description**
Calculate residuals for all models in ensemble.

**Usage**
```r
## S3 method for class 'ensemble'
residuals(object, ...)
```

**Arguments**
- `object`: ensemble of models
- `...`: other arguments ignored

**Value**
data.frame of class `resid_ensemble`
**summary.ensemble**

*Returns degrees of freedom, log likelihood, R-squared, AIC, BIC and adjusted R-squared.*

### Description

Returns degrees of freedom, log likelihood, R-squared, AIC, BIC and adjusted R-squared.

### Usage

```r
## S3 method for class 'ensemble'
summary(object, ...)  
```

### Arguments

- `object`: ensemble of models
- `...`: other arguments ignored

---

**summary.resid_ensemble**

*Summarise residuals from ensemble.*

### Description

Summarise residuals from ensemble.

### Usage

```r
## S3 method for class 'resid_ensemble'
summary(object, data = attr(object, "data"), ...)  
```

### Arguments

- `object`: model residuals from `residuals.ensemble`
- `data`: associated data set
- `...`: other arguments ignored
**summary.variable_ensemble**

*Summarise variable ensemble.*

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**Description**

Provides variable level statistics.

**Usage**

```r
## S3 method for class 'variable_ensemble'
summary(object, ...)
```

**Arguments**

- `object` : ensemble of models
- `...` : other arguments ignored
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