

# Package ‘meifly’

July 2, 2014

**Type** Package

**Title** Interactive model exploration using GGobi

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

**Author** Hadley Wickham <h.wickham@gmail.com>

**Maintainer** Hadley Wickham <h.wickham@gmail.com>

**Version** 0.3

**URL** <https://github.com/hadley/meifly>

**BugReports** <https://github.com/hadley/meifly/issues>

**Imports** plyr, leaps, MASS,

**License** MIT + file LICENSE

**LazyData** true

**NeedsCompilation** no

**Repository** CRAN

**Date/Publication** 2014-04-23 18:06:02

## R topics documented:

coef.ensemble . . . . .	2
findmodels . . . . .	2
fitall . . . . .	3
fitbest . . . . .	3
lmboot . . . . .	4
meifly . . . . .	4
residuals.ensemble . . . . .	4
summary.ensemble . . . . .	5
summary.resid_ensemble . . . . .	5
summary.variable_ensemble . . . . .	6
<b>Index</b>	<b>7</b>

---

<code>coef.ensemble</code>	<i>Calculate coefficients for all models in ensemble. Returns raw, t-value, absolute t-value, and standardised coefficient values.</i>
----------------------------	--

---

### Description

Calculate coefficients for all models in ensemble. Returns raw, t-value, absolute t-value, and standardised coefficient values.

### Usage

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

### Arguments

<code>object</code>	ensemble of models
<code>...</code>	other arguments ignored

---

<code>findmodels</code>	<i>General ensemble of models from models in global workspace'</i>
-------------------------	--

---

### Description

General ensemble of models from models in global workspace'

### Usage

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

### Arguments

<code>modeltype</code>	model class
<code>dataset</code>	if specified, all models must use this dataset
<code>pattern</code>	pattern of model object names to match

---

fitall	<i>Fit all combinations of x variables (<math>2^p</math>).</i>
--------	--

---

**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 <a href="#">lm</a> , <a href="#">rlm</a>
...	other arguments passed on to method

**Examples**

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

---

fitbest	<i>Use the leaps package to generate the best subsets.</i>
---------	--

---

**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 <a href="#">regsubsets</a>

**Examples**

```
y <- swiss$Fertility
mods <- fitbest(Fertility ~ ., swiss)
```

---

lmboot	<i>Generate linear models by bootstrapping observations</i>
--------	---

---

**Description**

Generate linear models by bootstrapping observations

**Usage**

```
lmboot(formula, data, n = 100)
```

**Arguments**

formula	model formula
data	data set
n	number of bootstrapped data sets to generate

---

meifly	<i>Interactive model ensemble exploration.</i>
--------	--

---

**Description**

Interactive model ensemble exploration.

---

residuals.ensemble	<i>Calculate residuals for all models in ensemble.</i>
--------------------	--

---

**Description**

Calculate residuals for all models in ensemble.

**Usage**

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

**Arguments**

object	ensemble of models
...	other arguments ignored

**Value**

data.frame of class resid\_ensemble

**See Also**

[summary.resid\\_ensemble](#)

---

summary.ensemble	<i>Returns degrees of freedom, log likelihood, R-squared, AIC, BIC and adjusted R-squared.</i>
------------------	--

---

**Description**

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

**Usage**

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

**Arguments**

object	ensemble of models
...	other arguments ignored

---

summary.resid_ensemble	<i>Summarise residuals from ensemble.</i>
------------------------	---

---

**Description**

Summarise residuals from ensemble.

**Usage**

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

**Arguments**

object	model residuals from <a href="#">residuals.ensemble</a>
data	associated data set
...	other arguments ignored

---

```
summary.variable_ensemble  
    Summarise variable ensemble.
```

---

**Description**

Provides variable level statistics.

**Usage**

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

**Arguments**

object	ensemble of models
...	other arguments ignored

# Index

## \*Topic **regression**

- coef.ensemble, 2
- findmodels, 2
- fitall, 3
- fitbest, 3
- lmboot, 4
- residuals.ensemble, 4
- summary.ensemble, 5
- summary.resid\_ensemble, 5
- summary.variable\_ensemble, 6

  

- coef.ensemble, 2

  

- findmodels, 2
- fitall, 3
- fitbest, 3, 3

  

- lm, 3
- lmboot, 4

  

- meifly, 4

  

- package-meifly (meifly), 4

  

- regsubsets, 3
- residuals.ensemble, 4, 5
- rlm, 3

  

- summary.ensemble, 5
- summary.resid\_ensemble, 5, 5
- summary.variable\_ensemble, 6