

# Package ‘meifly’

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**Type** Package

**Title** Interactive model exploration using GGobi

**Version** 0.2

**Imports** plyr, leaps, MASS,

**Suggests** rggobi

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

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

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

**URL** <http://had.co.nz/meifly>

**License** GPL

**LazyData** true

**Collate** 'ensemble.r' 'generate.r' 'ggobi.r' 'meifly.r' 'summarise.r'

**Repository** CRAN

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**NeedsCompilation** no

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coef.ensemble	<i>Calculate coefficients for all models in ensemble.</i>
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**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**

object	ensemble of models
...	other arguments ignored

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findmodels	<i>General ensemble of models from models in global workspace'...</i>
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**Description**

General ensemble of models from models in global workspace'

**Usage**

```
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

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

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

**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="#">r1m</a>
...	other arguments passed on to method

**Details**

This technique generalises [fitbest](#). While it is much slower it will work for any type of model.

**Examples**

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

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fitbest	<i>Use the leaps package to generate the best subsets.</i>
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**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)
```

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ggobi.ensemble	<i>Load model ensemble into GGobi with appropriate edge structure...</i>
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**Description**

Load model ensemble into GGobi with appropriate edge structure

**Usage**

```
ggobi.ensemble(data, ...)
```

**Arguments**

data	model ensemble object
...	other arguments ignored

**Examples**

```
y <- swiss$Fertility
x <- swiss[, -1]
mods <- fitall(y, x, "lm")
## Not run:
library(rggobi)
ggobi(mods, swiss)

## End(Not run)
```

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lmboot	<i>Generate linear models by bootstrapping observations...</i>
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**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

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residuals.ensemble	<i>Calculate residuals for all models in ensemble.</i>
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**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](#)

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

*Summarise residuals from ensemble.*

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### 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

Summarise variable ensemble.

### Usage

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

### Arguments

object	ensemble of models
...	other arguments ignored

### Details

Provides variable level statistics.

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