

## How to use loess method in GGally::ggpairs using wrap function

2

r ggplot2 wrap loess ggally

I am trying to replicate this simple example given in the Coursera R Regression Models course:

```
require(datasets)
data(swiss)
require(GGally)
require(ggplot2)
ggpairs(swiss, lower = list(continuous = "smooth", params = c(method = "loess")))
```

I expect to see a 6x6 pairs plot - one scatterplot with loess smoother and confidence intervals for each combination of the 6 variables in the swiss data.

However, I get the following error:

```
Error in display_param_error(): 'params' is a deprecated argument. Please 'wrap' the function to supply arguments. help("wrap", package = "GGally")
```

I looked through the `ggpairs()` and `wrap()` help files and have tried lots of permutations of the `wrap()` and `wrap_fn_with_param_arg()` functions.

I can get this to work as expected:

```
ggpairs(swiss, lower = list(continuous = wrap("smooth")))
```

But once I add the loess part in, it does not:

```
ggpairs(swiss, lower = list(continuous = wrap("smooth"), method = wrap("loess")))
```

I get this error when I tried the line above.

```
Error in value[3L]: The following ggpair plot functions are readily available: continuous: c('points', 'smooth', 'density', 'cor', 'blank') combo: c('box', 'dot', 'facethist', 'facetdensity', 'denstrip', 'blank') discrete: c('ratio', 'facetbar', 'blank') na: c('na', 'blank')
```

```
diag continuous: c('densityDiag', 'barDiag', 'blankDiag') diag discrete: c('barDiag', 'blankDiag') diag na: c('naDiag', 'blankDiag')
```

You may also provide your own function that follows the api of `function(data, mapping, ...){ ... }` and returns a `ggplot2` plot object Ex: `my_fn <- function(data, mapping, ...){ p <- ggplot(data = data, mapping = mapping) + geom_point(...) p } ggpairs(data, lower = list(continuous = my_fn))`

Function provided: loess

Obviously I am entering loess in the wrong place. Can anyone help me understand how to add the loess part in?

Note that my problem is different to [this one](#), as I am asking how to implement loess in `ggpairs` since the `params` argument became deprecated.

Thanks very much.

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meenaparam  
13 ● 3

Asked  
Jan 29 at 13:03

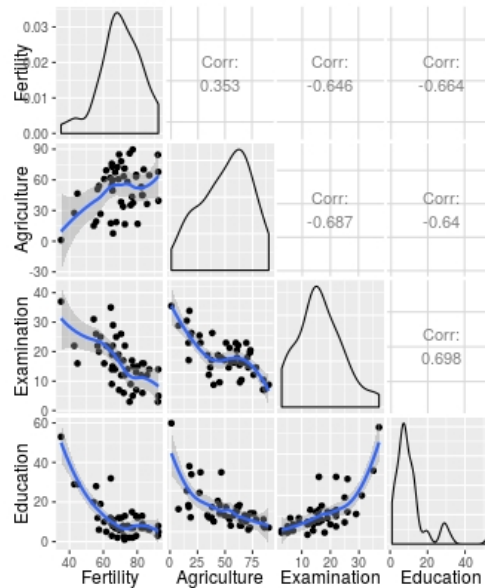
3

One quick way is to write your own function... the one below was edited from the one provided by the `ggpairs` error message in your question

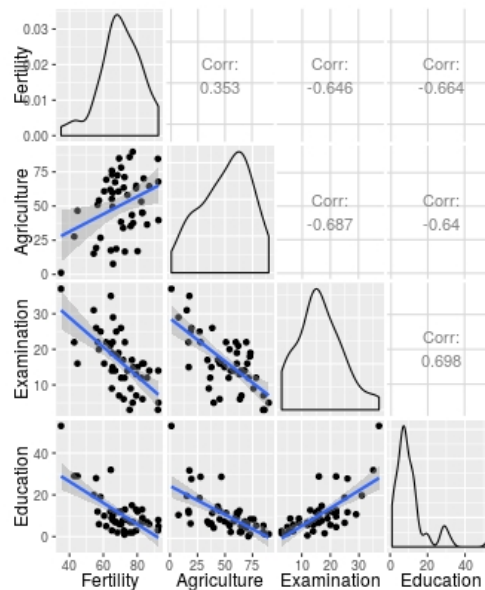
```
library(GGally)
library(ggplot2)
data(swiss)

# Function to return points and geom_smooth
# allow for the method to be changed
my_fn <- function(data, mapping, method="loess", ...){
  p <- ggplot(data = data, mapping = mapping) +
    geom_point() +
    geom_smooth(method=method, ...)
  p
}

# Default loess curve
ggpairs(swiss[1:4], lower = list(continuous = my_fn))
```



```
# Use wrap to add further arguments; change method to lm
ggpairs(swiss[1:4], lower = list(continuous = wrap(my_fn, method="lm")))
```



This perhaps gives a bit more control over the arguments that are passed to each geom\_

```
my_fn <- function(data, mapping, pts=list(), smt=list(), ...){
  ggplot(data = data, mapping = mapping, ...) +
    do.call(ggeom_point, pts) +
    do.call(ggeom_smooth, smt)
}

# Plot
ggpairs(swiss[1:4],
  lower = list(continuous =
    wrap(my_fn,
      pts=list(size=2, colour="red"),
      smt=list(method="lm", se=F, size=5, colour="blue"))))
```

share improve this answer



user20650

8,951 ● 1 ● 10 ● 33

**Answered**  
Jan 29 at 15:59

**Edited**  
Jan 30 at 12:53

1 That's so helpful, thanks very much! – meenaparam Feb 1 at 9:44

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