

rainbow

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rainbow: An R Package for Visualizing Functional Time Series

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Link

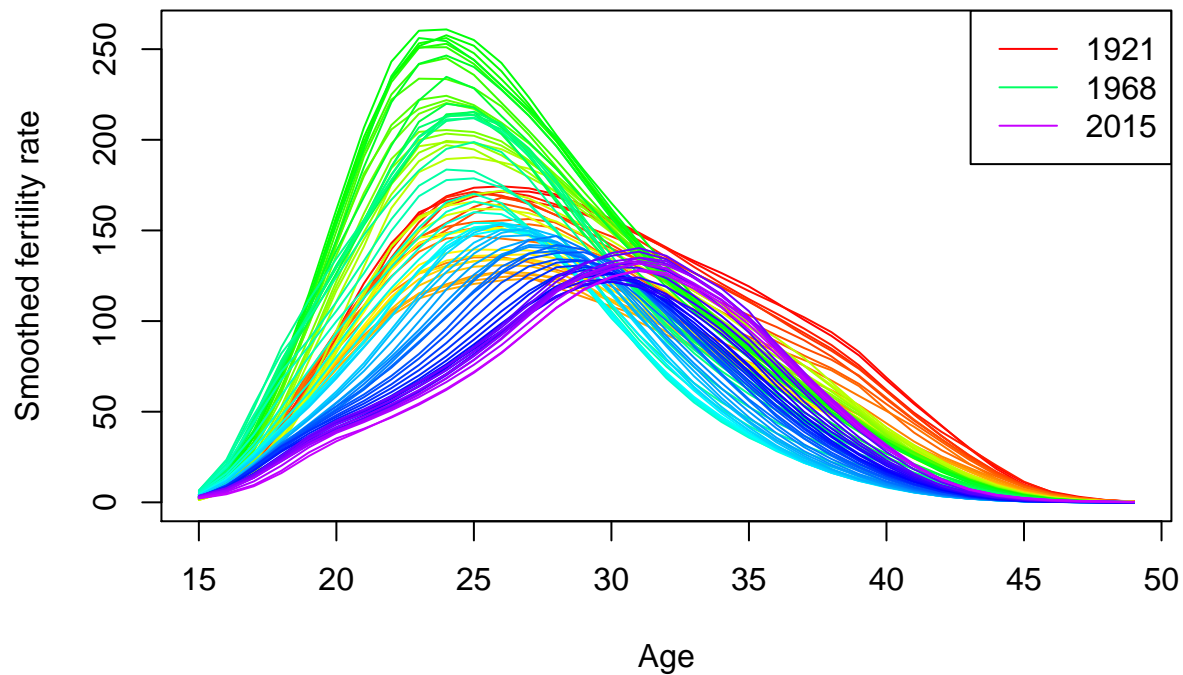
```
# load the package used throughout this article  
library("rainbow")
```

```
## Loading required package: MASS
```

```
## Loading required package: pcaPP
```

```
# plot.type = "function", curves are plotted by time  
# the most recent curve is shown in purple  
# the distant past curve is shown in red
```

```
plot(Australiasmoothfertility, plot.type = "functions", plotlegend = TRUE)
```



```
plot(ElNinosmooth, plot.type = "functions", plotlegend = TRUE)
```

```
## Error in plot(ElNinosmooth, plot.type = "functions", plotlegend = TRUE): nie znaleziono obiektu 'ElN'
```

```

# plot.type="depth", curves are plotted by depth
# depth is distance between median and each curve
# median curve (black line) is the center
plot(ElNinosmooth, plot.type = "depth", plotlegend = TRUE)

## Error in plot(ElNinosmooth, plot.type = "depth", plotlegend = TRUE): nie znaleziono obiektu 'ElNinosmooth'

# plot.type="density", curves are plotted by density
# mode (black line) has the highest density
plot(ElNinosmooth, plot.type = "density", plotlegend = TRUE)

## Error in plot(ElNinosmooth, plot.type = "density", plotlegend = TRUE): nie znaleziono obiektu 'ElNinosmooth'

# plot.type = "bivariate", the bivariate principal
# component scores are displayed
# type = "bag" requests the bagplot
fboxplot(ElNinosmooth, plot.type = "bivariate", type = "bag", ylim = c(-10, 20), xlim = c(-10, 20))

## Error in t(data$y): nie znaleziono obiektu 'ElNinosmooth'

# plot.type = "functional", the bivariate pc scores
# are matched to corresponding curves
fboxplot(ElNinosmooth, plot.type = "functional", type = "bag")

## Error in t(data$y): nie znaleziono obiektu 'ElNinosmooth'

# type = "hdr" requests the HDR boxplot
# alpha requests the coverage probability of inner
# and outer HDR regions, customarily c(0.05, 0.5)
fboxplot(ElNinosmooth, plot.type = "bivariate", type = "hdr", alpha = c(0.07, 0.5), ylim = c(-10, 20), xlim = c(-10, 20))

## Error in t(data$y): nie znaleziono obiektu 'ElNinosmooth'

fboxplot(ElNinosmooth, plot.type = "functional", type = "hdr", alpha = c(0.07, 0.5))

## Error in t(data$y): nie znaleziono obiektu 'ElNinosmooth'

# order represents the number of SVD components
# as the number of SVD components increases
# the residuals should be centered around zero
# plot can be suppressed by setting plot = FALSE
SVDplot(ElNinosmooth, order = 3, plot = TRUE)

## Error in SVDplot(ElNinosmooth, order = 3, plot = TRUE): nie znaleziono obiektu 'ElNinosmooth'

```

Problemy

- usunięto alias ElNinosmooth w nowszych wersjach pakietu

Jak naprawić

- zainstalować starszą wersję pakietu lub użyć nazwy ElNino

Podsumowanie

Kategoria	Ocena
Dostęp do zewnętrznych zasobów	-----
Kompatybilność z nowszymi wersjami	+++xx
Kwestie graficzne/estetyczne	+++++
Brak problemów przy dodatkowej konfiguracji	+++++
Odporność na wpływ losowości	-----
Dostępność kodów źródłowych	+++++

Session info

```
## R version 3.6.3 (2020-02-29)
## Platform: x86_64-pc-linux-gnu (64-bit)
## Running under: Debian GNU/Linux 9 (stretch)
##
## Matrix products: default
## BLAS: /usr/lib/openblas-base/libblas.so.3
## LAPACK: /usr/lib/libopenblas-r0.2.19.so
##
## locale:
##  [1] LC_CTYPE=pl_PL.UTF-8      LC_NUMERIC=C
##  [3] LC_TIME=pl_PL.UTF-8      LC_COLLATE=pl_PL.UTF-8
##  [5] LC_MONETARY=pl_PL.UTF-8  LC_MESSAGES=pl_PL.UTF-8
##  [7] LC_PAPER=pl_PL.UTF-8     LC_NAME=C
##  [9] LC_ADDRESS=C             LC_TELEPHONE=C
## [11] LC_MEASUREMENT=pl_PL.UTF-8 LC_IDENTIFICATION=C
##
## attached base packages:
## [1] stats      graphics  grDevices  utils      datasets  methods   base
##
## other attached packages:
## [1] rainbow_3.6    pcaPP_1.9-73  MASS_7.3-51.5
##
## loaded via a namespace (and not attached):
##  [1] mclust_5.4.5      Rcpp_1.0.3      codetools_0.2-16
##  [4] lattice_0.20-40  mvtnorm_1.1-0    digest_0.6.22
##  [7] grid_3.6.3       magrittr_1.5     evaluate_0.14
## [10] KernSmooth_2.23-16 rlang_0.4.1     stringi_1.4.3
## [13] Matrix_1.2-18    rmarkdown_1.16  tools_3.6.3
## [16] stringr_1.4.0    ks_1.11.7       xfun_0.10
## [19] yaml_2.2.0       compiler_3.6.3  colorspace_1.4-1
## [22] cluster_2.1.0    htmltools_0.4.0 knitr_1.25
## [25] hdrdce_3.3
```