



17th Meeting of the Hamburg R-User-Group, 12th Feb 2019

Project "easystats" Making R stats easier!

Dr. Daniel Lüdecke d.luedecke@uke.de https://github.com/easystats





easystats https://github.com/easystats



easystats easystats https://github.com/easystats

Dominique



Neuropsychologist, psychotherapist, pizza lover 🔊

Postdoc at the Clinical Brain Lab (Singapore) on the neuroscience of deception



easystats



https://github.com/easystats

Dominique

Neuropsychologist, psychotherapist, pizza lover 🔊

Postdoc at the Clinical Brain Lab (Singapore) on the neuroscience of deception

Daniel



Gerontologist, kind of



Postdoc at the Department of Medical Sociology (University Medical Center Hamburg)





- Provide a set of packages that makes it easier to do statistical analysis and reporting with R.
 - □ Low-level (or "core") packages
 - Target group: advanced users and developers
 - Aims: accessor functions to access the internals of models, such as variables, formulas, model frame/data, random effects, their structure and so on...





- Provide a set of packages that makes it easier to do statistical analysis and reporting with R.
 - ☐ Mid-level packages
 - Target group: end-user
 - Aims: computation of model "performance" metrics (R2, ICC, CoD, AIC, BIC and whatnot)





- Provide a set of packages that makes it easier to do statistical analysis and reporting with R.
 - ☐ High Level
 - Target groups: non-experts/beginners that want fully-baked solutions to solve their problems and that want to experience the power of R
 - Aims: reporting, plotting



A first low-level package...

insight



Model objects are terrifying

```
# model frame?
library(nlme)
m <- gls(
  follicles ~ sin(2*pi*Time) +
  cos(2*pi*Time), Ovary,
  correlation = corAR1(form = ~ 1 | Mare)
model.frame(m)
#> corStruct parameters:
#> [1] 1.960656
```





Model objects are terrifying

```
# model family?

fm1 <- lme(
   distance ~ age, data = Orthodont
)

family(fm1)

#> Error in UseMethod("family") :

#> no applicable method for 'family'

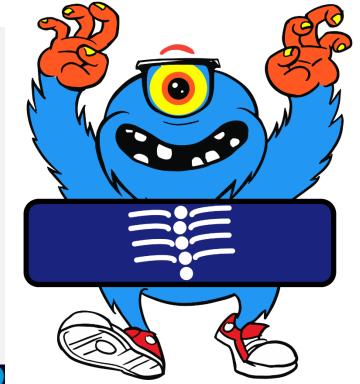
#> applied to an object of class "lme"
```





Model objects are terrifying

```
# model terms?
library(MCMCglmm)
data(PlodiaP0)
m <- MCMCglmm(
  PO~1, random=~FSfamily, data=PlodiaPO,
  verbose=FALSE, nitt=1300, burnin=300,
  thin=1
all.vars(terms(m))
#> Error in terms.default(m) : no
#> terms component nor attribute
```









Gain insight into your models!



- The goal of this package is to provide tools that make it easy and intuitive to access information contained in various models.
- Although there are generic functions to get information and data from models, many modelling-functions from different packages do not provide methods to access these information.
- insight aims at closing this gap by providing consistent functions that work for (almost) any models.

easystats



https://sithub.com/easystats

Dominique & Daniel



