# General information about GAMs

## Pablo E. Gutiérrez-Fonseca

3/18/2022

Hay que ver el Smooth Terms: ->  $sds(sdate_1)$  ->  $sds(stimes_1)$  is the variance parameter, which has the effect of controlling the wiggliness of the smooth - the larger this value the more wiggly the smooth. https://fromthebottomoftheheap.net/2018/04/21/fitting-gams-with-brms/

s = represent smooth function

#### Define knots

k = knots. 12 month per year or 24 sampling event per year. Seleccione 12 por Simpson, del siguiente enlace https://fromthebottomoftheheap.net/2014/05/09/modelling-seasonal-data-with-gam/

#### bs= basis spline

bs= basis spline Smooth classes are invoked directly by s terms https://stat.ethz.ch/R-manual/R-devel/library/mgcv/html/smooth.terms.html

### bf

Note that we use the bf() argument to specify this nonlinear model.

## pp\_check()

https://tem11010.github.io/regression\_brms/ The pp\_check allows for graphical posterior predictive checking. We can generate figures to compare the observed data to simulated data from the posterior predictive distribution. This is a great graphical way to evaluate your model.

Here, nsamples refers to the number of draws from the posterior distribution to use to calculate yrep values.

pp\_check(model, nsamples=100)