

Modelling Nonlinear Personality Change Surrounding Transitions

These pages demonstrate how to apply seven approaches to the statistical modelling of non-linear change using R. They are intended to be used in conjunction with the explanations provided in the paper “*Modelling Nonlinear Personality Change Surrounding Transitions: A Review of Statistical Approaches*”.

To reproduce the results, it is necessary to prepare the data set, plot base, and training and test data sets, as outlined in the “Data Preparation” section.

R version and package versions used:

R version 4.4.2 (2024-10-31)

Platform:

Matrix products:

attached base packages:

```
[1] stats      graphics  grDevices  utils      datasets  methods   base
```

other attached packages:

```
[1] mvtnorm_1.3-2      rstan_2.32.6      StanHeaders_2.32.10
[4] lgpr_1.2.4         tidygam_0.2.0     gratia_0.9.2
[7] mgcv_1.9-1         segmented_2.1-3    MASS_7.3-61
[10] boot_1.3-31        nlme_3.1-166      nls.multstart_1.3.0
[13] caret_6.0-94       lattice_0.22-6     lmerTest_3.1-3
[16] lme4_1.1-35.5      Matrix_1.7-1       lubridate_1.9.3
[19] forcats_1.0.0      stringr_1.5.1     dplyr_1.1.4
[22] purrr_1.0.2        readr_2.1.5        tidyr_1.3.1
[25] tibble_3.2.1       ggplot2_3.5.1     tidyverse_2.0.0
[28] foreign_0.8-87
```