Package: morpheus (via r-universe)

August 31, 2024

Title Estimate Parameters of Mixtures of Logistic Regressions

Description Mixture of logistic regressions parameters (H)estimation
with (U)spectral methods. The main methods take d-dimensional
inputs and a vector of binary outputs, and return parameters
according to the GLMs mixture model (General Linear Model). For
more details see chapter 3 in the PhD thesis of Mor-Absa Loum:
<https://www.theses.fr/s156435>, available here
<https://theses.hal.science/tel-01877796/document>.

Version 1.0-3

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Depends R (>= 3.5.0),

Imports MASS, jointDiag, methods, pracma

Suggests devtools, flexmix, parallel, testthat (>= 3.0.0), roxygen2

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RoxygenNote 7.1.1

URL <https://github.com/yagu0/morpheus>

Collate 'utils.R' 'A_NAMESPACE.R' 'computeMu.R' 'multiRun.R'
'optimParams.R' 'plot.R' 'sampleIO.R'

Config/testthat/edition 3

Repository https://yagu0.r-universe.dev

RemoteUrl https://github.com/yagu0/morpheus

RemoteRef HEAD

RemoteSha dfdd811f8488c88148c930eba94924fdbb7a3261

Contents

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morpheus-package	*Estimate Parameters of Mixtures of Logistic Regressions*

Description

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Details

The package devtools should be useful in development stage, since we rely on testthat for unit tests, and roxygen2 for documentation. knitr is used to generate the package vignette. jointDiag allows to solve a joint diagonalization problem, providing a more robust solution compared to a single diagonalization. Concerning the other suggested packages:

- tensor is used for comparing to some reference functions initially coded in R; it should not be required in further package versions;
- parallel (generally) permits to run the bootstrap method faster.

The two main functions are located in R/computeMu.R and R/optimParams.R:

- computeMu(): estimation of parameters directions;
- optimParams(): builds an object o to estimate all other parameters when calling o$run(), starting from the directions obtained by previous function

See also multiRun(), which is a flexible method to run Monte-Carlo or bootstrap estimations using different models in various contexts.

Author(s)

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Index