

Package ‘SMEP24’

September 13, 2024

Type Package

Title SMEP 2024 Project

Version 0.1.0

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Description Contains files for the 2024 SMEP project

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Encoding UTF-8

LazyData true

Suggests testthat (>= 3.0.0)

Depends bayesplot,
cmdstanr,
ggplot2

Config/testthat/edition 3

RoxygenNote 7.3.2

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bifactor	<i>Generate a Bifactor Simulation Environment</i>
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Description

Generate a Bifactor Simulation Environment

Usage

```
bifactor(...)
```

Arguments

... objects inherited from parent

Value

an environment stored to a list object of the bifactor simulation environment

countRhat	<i>Rhat Convergence Indicator Function</i>
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Description

Rhat Convergence Indicator Function

Usage

```
countRhat(modsum, rHatThreshold = 1.05)
```

Arguments

modsum	object generated from '\$summary()' method on a 'cmdstanr' model environment
rHatThreshold	maximum tolerance for indicated convergence based on Rhat values

Value

count of Rhat > threshold

getDims

Find Dimensions of Filtered .GlobalEnv Object

Description

Find Dimensions of Filtered .GlobalEnv Object

Usage

```
getDims(name)
```

Arguments

name name of target object

Value

integer of object's total dimensions

getInits

Get Parameter Values for Initializing NUTS

Description

Get Parameter Values for Initializing NUTS

Usage

```
getInits(modsum)
```

Arguments

modsum object generated from '\$summary()' method on a 'cmdstanr' model environment

Value

a named list object containing *expected a prior* from ADVI-approximated posterior draws

getStdSumScore	<i>Calculate Standardized Sum Scores</i>
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Description

Calculate Standardized Sum Scores

Usage

```
getStdSumScore(resps)
```

Arguments

resps	matrix of dichotomized (0/1) item response data
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Value

a vector of standardized sum scores of the measured latent trait

makeNeg	<i>Negative Lambda Indicator Function</i>
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Description

Negative Lambda Indicator Function

Usage

```
makeNeg(lambda, numNeg = 2)
```

Arguments

lambda	inputted item discrimination/slope values
numNeg	integer indicating quantity of lambda values to negate

Value

a vector of all lambda values (including negated lambdas)

twopl*Generate a 2-Parameter Logistic (2PL) IRT Simulation Environment*

Description

Generate a 2-Parameter Logistic (2PL) IRT Simulation Environment

Usage

```
twopl(...)
```

Arguments

... objects inherited from parent

Value

an environment stored to a list object of the 2PL simulation environment

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