Package 'manMetaVAR'

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Title Multivariate Meta-Analysis of Vector Autoregressive Model
Coefficients

Version 0.9.1

Description Research compendium for the manuscript
Pesigan, I. J. A., et al. (In Preparation).
Multivariate Meta-Analysis of Vector Autoregressive Model Coefficients.
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BugReports https://github.com/jeksterslab/manMetaVAR/issues

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Remotes jeksterslab/fitDTVARMx, jeksterslab/metaVAR

Suggests knitr, rmarkdown, testthat

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NeedsCompilation no

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Compress   *Compress Replication*

Description

Compress Replication

Usage

```
Compress(taskid, repid, output_folder)
```

Arguments

taskid	Positive integer. Task ID.
repid	Positive integer. Replication ID.
output_folder	Character string. Output folder.

Value

The output is saved as an external file in `output_folder`.

Author(s)

Ivan Jacob Agaloos Pesigan

FitDTVAR   *Fit the Model using the fitDTVARMx Package*

Description

The function fits the model using the [fitDTVARMx](#) package.

Usage

```
FitDTVAR(data, ncores = NULL)
```

Arguments

data	R object. Output of the [GenData()](#) function.
ncores	Positive integer. Number of cores to use.

See Also

Other Model Fitting Functions: [FitJAGS()](#), [FitMLVAR()](#)

Examples

```
## Not run:
set.seed(42)
data <- GenData(taskid = 1)
fit <- FitDTVAR(
  data = data,
  ncores = parallel::detectCores()
)
summary(fit)

## End(Not run)
```

FitJAGS   *Fit the Model using JAGS*

Description

The function fits the model using JAGS.

Usage

```
FitJAGS(data, n.chains = 4, n.adapt = 2000, n.iter = 10000)
```

Arguments

data	R object. Output of the [GenData()](#) function.
n.chains	the number of parallel chains for the model
n.adapt	the number of iterations for adaptation. See [adapt](#) for details. If n.adapt = 0 then no adaptation takes place.
n.iter	number of iterations to monitor

See Also

Other Model Fitting Functions: [FitDTVAR()](#), [FitMLVAR()](#)

Examples

```
## Not run:
set.seed(42)
data <- GenData(taskid = 1)
fit <- FitJAGS(data = data)
summary(fit)

## End(Not run)
```

FitMetaVAR   *Multivariate Meta-Analysis using the metaVAR Package*

Description

The function performs multivariate meta-snalysis using the [metaVAR](#) package.

Usage

```
FitMetaVAR(fit, ncores = NULL)
```

Arguments

fit	R object. Output of the [FitDTVARMx()](#) function.
ncores	Positive integer. Number of cores to use.

Examples

```
## Not run:
set.seed(42)
data <- GenData(taskid = 1)
fit <- FitDTVAR(
  data = data,
  ncores = parallel::detectCores()
)
pooled <- FitMetaVAR(
```

```
    fit = fit,
    ncores = parallel::detectCores()
)
summary(pooled)

## End(Not run)
```

FitMLVAR   *Fit the Model using the mlVAR Package*

Description

The function fits the model using the [mlVAR](#) package.

Usage

```
FitMLVAR(data)
```

Arguments

data   R object. Output of the `GenData()` function.

See Also

Other Model Fitting Functions: `FitDTVAR()`, `FitJAGS()`

Examples

```
## Not run:
set.seed(42)
data <- GenData(taskid = 1)
fit <- FitMLVAR(data = data)
summary(fit)

## End(Not run)
```

GenData   *Simulate Data*

Description

The function simulates data using the `simStateSpace::SimSSMIVary()` function.

Usage

```
GenData(taskid)
```

Arguments

taskid   Positive integer. Task ID.

Examples

```
## Not run:
set.seed(42)
data <- GenData(taskid = 1)

## End(Not run)
```

---

params   *Simulation Parameters*

Description

Simulation Parameters

Usage

```
params
```

Format

A dataframe with 25 rows and 3 columns:

taskid Simulation Task ID.

n Sample size.

time Number of measurement occassions.

Author(s)

Ivan Jacob Agaloos Pesigan

Sim   *Simulation Replication*

Description

Simulation Replication

Usage

```
Sim(taskid, repid, output_folder, overwrite, integrity, seed)
```

Arguments

taskid	Positive integer. Task ID.
repid	Positive integer. Replication ID.
output_folder	Character string. Output folder.
overwrite	Logical. Overwrite existing output in output_folder.
integrity	Logical. If integrity = TRUE, check for the output file integrity when overwrite = FALSE.
seed	Integer. Random seed.

Value

The output is saved as an external file in output_folder.

Author(s)

Ivan Jacob Agaloos Pesigan

SimFitDTVAR   *Simulation Replication - FitDTVAR*

Description

Simulation Replication - FitDTVAR

Usage

```
SimFitDTVAR(taskid, repid, output_folder, seed, suffix, overwrite, integrity)
```

Arguments

`taskid`	Positive integer. Task ID.
`repid`	Positive integer. Replication ID.
`output_folder`	Character string. Output folder.
`seed`	Integer. Random seed.
`suffix`	Character string. Output of `manCTMed:::.SimSuffix()`.
`overwrite`	Logical. Overwrite existing output in `output_folder`.
`integrity`	Logical. If `integrity = TRUE`, check for the output file integrity when `overwrite = FALSE`.

Details

This function is executed via the `Sim` function.

Value

The output is saved as an external file in `output_folder`.

Author(s)

Ivan Jacob Agaloos Pesigan

SimFitJAGS   *Simulation Replication - FitJAGS*

Description

Simulation Replication - FitJAGS

Usage

```
SimFitJAGS(taskid, repid, output_folder, seed, suffix, overwrite, integrity)
```

Arguments

`taskid`	Positive integer. Task ID.
`repid`	Positive integer. Replication ID.
`output_folder`	Character string. Output folder.
`seed`	Integer. Random seed.
`suffix`	Character string. Output of `manCTMed:::.SimSuffix()`.
`overwrite`	Logical. Overwrite existing output in `output_folder`.
`integrity`	Logical. If `integrity = TRUE`, check for the output file integrity when `overwrite = FALSE`.

Details

This function is executed via the `Sim` function.

Value

The output is saved as an external file in `output_folder`.

Author(s)

Ivan Jacob Agaloos Pesigan

SimFitMetaVAR   *Simulation Replication - FitMetaVAR*

Description

Simulation Replication - FitMetaVAR

Usage

```
SimFitMetaVAR(taskid, repid, output_folder, seed, suffix, overwrite, integrity)
```

Arguments

taskid	Positive integer. Task ID.
repid	Positive integer. Replication ID.
output_folder	Character string. Output folder.
seed	Integer. Random seed.
suffix	Character string. Output of `manCTMed:::.SimSuffix()`.
overwrite	Logical. Overwrite existing output in `output_folder`.
integrity	Logical. If `integrity = TRUE`, check for the output file integrity when `overwrite = FALSE`.

Details

This function is executed via the `Sim` function.

Value

The output is saved as an external file in `output_folder`.

Author(s)

Ivan Jacob Agaloos Pesigan

SimFitMLVAR	*Simulation Replication - FitMLVAR*

Description

Simulation Replication - FitMLVAR

Usage

```
SimFitMLVAR(taskid, repid, output_folder, seed, suffix, overwrite, integrity)
```

Arguments

taskid	Positive integer. Task ID.
repid	Positive integer. Replication ID.
output_folder	Character string. Output folder.
seed	Integer. Random seed.
suffix	Character string. Output of manCTMed:::.SimSuffix().
overwrite	Logical. Overwrite existing output in output_folder.
integrity	Logical. If integrity = TRUE, check for the output file integrity when overwrite = FALSE.

Details

This function is executed via the Sim function.

Value

The output is saved as an external file in output_folder.

Author(s)

Ivan Jacob Agaloos Pesigan

SimFN   *Simulation File Name*

Description

Simulation File Name

Usage

```
SimFN(output_type, output_folder, suffix)
```

Arguments

output_type	Character string. Output type. Valid values include "data", "fit-dynr", "dynr-delta-xmy", "dynr-delta-ymx", "dynr-mc-xmy", and "dynr-mc-ymx"
output_folder	Character string. Output folder.
suffix	Character string. Output of manCTMed:::.SimSuffix().

Value

Returns a character string file name with the output_folder in the OS-specific format.

SimGenData   *Simulation Replication - GenData*

Description

Simulation Replication - GenData

Usage

```
SimGenData(taskid, repid, output_folder, seed, suffix, overwrite, integrity)
```

Arguments

taskid	Positive integer. Task ID.
repid	Positive integer. Replication ID.
output_folder	Character string. Output folder.
seed	Integer. Random seed.
suffix	Character string. Output of manCTMed:::.SimSuffix().
overwrite	Logical. Overwrite existing output in output_folder.
integrity	Logical. If integrity = TRUE, check for the output file integrity when overwrite = FALSE.

Details

This function is executed via the `Sim` function.

Value

The output is saved as an external file in `output_folder`.

Author(s)

Ivan Jacob Agaloos Pesigan

SimProj   *Simulation Project Name*

Description

Simulation Project Name

Usage

```
SimProj()
```

Value

Returns the project name as a character string.

Author(s)

Ivan Jacob Agaloos Pesigan

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