Package 'infPackage'

February 7, 2025

Type Package

Title Ecological Inference Elections

Version 0.1.0

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Description A package to implement the RxG ecological inference algorithms as exposed in Thraves, C and Ubilla, P paper.

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Encoding UTF-8

LinkingTo Rcpp

Imports Rcpp,
jsonlite,
R6,
devtools,
roxygen2

Roxygen list(markdown = FALSE, load = ``source", r6 = FALSE, old_usage = TRUE)

RoxygenNote 7.3.2

Contents

as.matrix.rxc *Extract Probability Matrix from rxc Object*

Description

Extracts the probability matrix from an rxc object.

Usage

```
## S3 method for class 'rxc'
as.matrix(object)
```

Arguments

object	An rxc object.

Value

A matrix containing the estimated probabilities.

Examples

```
model <- rxc$new(X = matrix(1:15, 5, 3), W = matrix(1:50, 5, 10))
as.matrix(model)
```

ballots.rxc *Get Number of Ballot Boxes*

Description

Returns the number of ballot boxes in an rxc object.

Usage

```
ballots.rxc(object)
```

Arguments

object	An rxc object.

Value

An integer representing the number of ballots.

Examples

```
model <- rxc$new(X = matrix(1:15, 5, 3), W = matrix(1:50, 5, 10))
ballots(model)
```

candidates.rxc *Get Number of Candidates*

Description

Returns the current number of candidates in an rxc object.

Usage

```
candidates.rxc(object)
```

Arguments

object	An rxc object.

Value

An integer representing the number of candidates.

Examples

```
model <- rxc$new(X = matrix(1:15, 5, 3), W = matrix(1:50, 5, 10))
candidates(model)
```

groups.rxc *Get Number of Groups*

Description

Returns the current number of groups in an rxc object.

Usage

```
groups.rxc(object)
```

Arguments

object	An rxc object.

Value

An integer representing the number of groups.

Examples

```
model <- rxc$new(X = matrix(1:15, 5, 3), W = matrix(1:50, 5, 10))
groups(model)
```

predict.rxc *Predict RxC Probabilities*

Description

Predicts the RxC probability using the EM algorithm of an rxc object. This function is a wrapper around `compute()`.

Usage

```
## S3 method for class 'rxc'
predict(object, ...)
```

Arguments

`object`	An rxc object.
`...`	Additional arguments to pass to `compute()`.

Value

A matrix of estimated probabilities.

Examples

```
model <- rxc$new(X = matrix(1:9, 3, 3), W = matrix(1:9, 3, 3))
predict(model, "Hit and Run", step_size = 1000, samples = 5000)
```

sum.rxc *Get Total Number of Voters*

Description

Returns the total number of voters in the system from an rxc object.

Usage

```
## S3 method for class 'rxc'
sum(object)
```

Arguments

`object`	An rxc object.

Value

An integer representing the total number of voters.

Examples

```
model <- rxc$new(X = matrix(1:15, 5, 3), W = matrix(1:50, 5, 10))
sum(model)
```

summary.rxc *Summarize rxc Object*

Description

Returns a list with the principal attributes of an rxc object.

Usage

```
## S3 method for class 'rxc'
summary(object)
```

Arguments

object	An rxc object.

Value

A list with the principal attributes.

Examples

```
model <- rxc$new(X = matrix(1:15, 5, 3), W = matrix(1:10, 2, 5))
summary(model)
```

update.rxc *Update an rxc Object*

Description

Updates an existing rxc model with a new EM algorithm computation.

Usage

```
## S3 method for class 'rxc'
update(object, ...)
```

Arguments

object	An rxc object.
...	New parameters to pass to compute().

Value

The updated rxc object.

Examples

```
model <- rxc$new(X = matrix(1:15, 5, 3), W = matrix(1:50, 5, 10))
update(model, "MVN PDF")
```

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