

Package ‘optimalcausalities’

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Title Optimal Stochastic Interventions in High-dimensional Data

Version 2.0

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Description Description here.

Depends R (>= 3.3.3)

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Encoding UTF-8

LazyData true

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Imports Rsolnp, keyATM

RoxygenNote 7.1.1

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analyze_fixedStrategy *analyze_fixedStrategy*

Description

Implements ...

```
analyze_fixedStrategy(  
    specifiedAssignmentMechanism = NULL,  
    hypotheticalAssignmentMechanism = NULL  
)
```

dfm	'document-feature matrix'. A list ...
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- Items.

- Kosuke Imai, Rohit, Connor

```
#set seed
set.seed(1)

#Generate data
x <- rnorm(100)
```

computeQse_conjoint	<i>computeQse_conjoint</i>
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Implements ...

```
computeQse_conjoint(  
  FactorsMat,  
  Yobs,  
  hypotheticalProblList,  
  assignmentProblList,  
  log_pr_w = NULL,  
  hajek = T,  
  returnLog = T,  
  log_treatment_combs = NULL  
)
```

dfm 'document-feature matrix'. A list ...

Value

A list consiting of

- Items.

References

- Kosuke, Rohit, Connor. Working Paper.

Examples

```
#set seed
set.seed(1)

#Geneate data
x <- rnorm(100)
```

computeQse_lda

computeQse_lda

Description

Implements ...

Usage

```
computeQse_lda(
  THETA__,
  INDICES_,
  DOC_INDICES_U,
  D_INDICES_U,
  PI_MAT_INPUT,
  MARGINAL_BOUNDS,
  DOC_LIST,
  MODAL_DOC_LEN,
  TERMS_MAT_INPUT,
  LOG_TREATCOMBS,
  YOBS,
  returnLog = T,
  LOG_PR_W = NULL
)
```

Arguments

dfm 'document-feature matrix'. A list ...

Value

A list consiting of

- Items.

References

- Kosuke, Rohit, Connor. Working Paper.

Examples

```
#set seed
set.seed(1)

#Generate data
x <- rnorm(100)
```

computeQ_conjoint	<i>computeQ_conjoint</i>
-------------------	--------------------------

Description

Implements ...

Usage

```
computeQ_conjoint(
  FactorsMat,
  Yobs,
  assignmentProbList,
  hypotheticalProbList = NULL,
  se_ub = NULL,
  split1_indices = NULL,
  split2_indices = NULL,
  computeThetaSEs = F,
  openBrowser = F,
  hajek = T,
  findMax = T,
  quiet = T
)
```

Arguments

dfm 'document-feature matrix'. A list ...

Value

A list consisting of

- Items.

References

- Kosuke Imai, Rohit, Connor

Examples

```
#set seed
set.seed(1)

#Generate data
x <- rnorm(100)
```

computeQ_lda

*computeQ_lda***Description**

Implements ...

Usage

```
computeQ_lda(
  DTM_MAT,
  hypotheticalTopicProportion = NULL,
  n_fold = 3,
  Yobs,
  topicProportions,
  documents_list,
  wordTopicDistributions,
  se_ub = sd(Yobs)/10,
  split2_indices = NULL,
  split1_indices = NULL,
  computeThetaSEs = T,
  findMax = T,
  nboot = 10,
  trim_q = 1,
  maxWt = 1e+10,
  maxWt_hajek = NULL,
  alphaLevel = 0.05,
  openBrowser = F
)
```

Arguments

dfm 'document-feature matrix'. A list ...

Value

A list consisting of

- Items.

References

- Kosuke Imai, Rohit, Connor

Examples

```
#set seed
set.seed(1)

#Generate data
x <- rnorm(100)
```

find_optimalStrategy	<i>find_optimalStrategy</i>
----------------------	-----------------------------

Description

Implements ...

Usage

```
find_optimalStrategy(specifiedAssignmentMechanism = NULL, cubeConstraint = F)
```

Arguments

dfm 'document-feature matrix'. A list ...

Value

A list consisting of

- Items.

References

- Kosuke Imai, Rohit, Connor

Examples

```
#set seed
set.seed(1)

#Generate data
x <- rnorm(100)
```

plot_optimalStrategy	<i>plot_optimalStrategy</i>
----------------------	-----------------------------

Description

Implements ...

Usage

```
plot_optimalStrategy(
  specifiedAssignmentMechanism = NULL,
  hypotheticalAssignmentMechanism = NULL
)
```

Arguments

dfm 'document-feature matrix'. A list ...

Value

A list consisting of

- Items.

References

- Kosuke Imai, Rohit, Connor

Examples

```
#set seed
set.seed(1)

#Geneate data
x <- rnorm(100)
```

```
specify_treatmentMechanism
                                specify
```

Description

Implements ...

Usage

```
specify_treatmentMechanism(Yobs, W, PrW_parameters = list())
```

Arguments

dfm 'document-feature matrix'. A list ...

Value

A list consisting of

- Items.

References

- Kosuke Imai, Rohit, Connor

Examples

```
#set seed  
set.seed(1)
```

```
#Generate data  
x <- rnorm(100)
```


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