

# Package ‘optimalcausalities’

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**Title** Optimal Stochastic Interventions in High-dimensional Data

**Version** 2.0

**Authors**

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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_strategy	<i>analyze_strategy</i>
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### Description

Implements ...

### Usage

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

### Arguments

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

### Value

A list consiting of

- Items.

### References

- Kosuke Imai, Rohit, Connor

### Examples

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

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

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computeQse_conjoint	<i>computeQse_conjoint</i>
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### Description

Implements ...

**Usage**

```
computeQse_conjoint(
  FactorsMat,
  Yobs,
  hypotheticalProbList,
  assignmentProbList,
  log_pr_w = NULL,
  hajek = T,
  returnLog = T,
  log_treatment_combs
)
```

**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)

#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 consisting 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>
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### Description

Implements ...

## Usage

```
computeQ_conjoint(  
  FactorsMat,  
  Yobs,  
  hypotheticalProbList,  
  assignmentProbList,  
  log_pr_w = NULL,  
  hajak = T  
)
```

## Arguments

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

**Value**

A list consisting of

- Items.

## References

- Kosuke, Rohit, Connor. Working Paper.

## Examples

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

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

computeQ_lda	<i>computeQ_lda</i>
--------------	---------------------

### Description

Implements ...

## Usage

```
computeQ_lda(  
  theta = NULL,  
  term_mat,  
  Yobs,  
  doc_words,  
  dtm = NULL,  
  pi_mat = NULL,  
  alpha_mat = NULL,  
  log_pr_w = NULL,  
  computeSE = F,  
  trim_q = 1,  
  quiet = T,  
  iters = 100,  
  smoothWts = F,  
  TreatFxn = NULL,  
  maxWt = 1e+10,  
  maxWt_hajek = NULL,  
  term_mat_TRUE = NULL,  
  doc_indices_u = NULL,  
  d_indices_u = NULL,  
  diagnostics = F  
)
```

## Arguments

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

**Value**

A list consisting of

- Items.

**References**

- Kosuke, Rohit, Connor. Working Paper.

**Examples**

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

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

---

find\_optimalStrategy    *find\_optimalStrategy*

---

**Description**

Implements ...

**Usage**

```
find_optimalStrategy(specifiedAssignmentMechanism = 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)

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

---

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

## Description

Implements ...

## Usage

```
optimizeQ_conjoint(  
  FactorsMat,  
  Yobs,  
  assignmentProbList,  
  se_ub,  
  INDICES_SPLIT1,  
  INDICES_SPLIT2 = NULL,  
  computeSEs = F,  
  hajek = T,  
  doMax = T,  
  quiet = T  
)
```

## Arguments

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

## Value

A list consiting of

- Items.

## References

- Kosuke Imai, Rohit, Connor

## Examples

```
#set seed  
set.seed(1)  
  
#Geneate data  
x <- rnorm(100)
```

---

optimizeQ_lda	<i>computeQ_lda</i>
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---

## Description

Implements ...

## Usage

```
optimizeQ_lda(
  INDICES_SPLIT1 = NULL,
  INDICES_SPLIT2 = NULL,
  DTM_MAT,
  n_fold = 3,
  YOBS,
  PI_MAT,
  DOC_LIST,
  TERMS_MAT,
  SE_UB = sd(YOBS)/10,
  nboot = 10,
  trim_q = 1,
  maxWt = 1e+10,
  maxWt_hajek = NULL,
  computeSEs = T,
  doMax = T,
  alphaLevel = 0.05,
  openBrowser = F
)
```

## Arguments

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

## Value

A list consiting 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 consiting of

- Items.

**References**

- Kosuke Imai, Rohit, Connor

**Examples**

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

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

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