

# R documentation

of all in ‘./man’

October 23, 2024

## R topics documented:

combine_matrix . . . . .	2
getN_Bin_Equi . . . . .	2
getN_Bin_Noninf . . . . .	3
getN_Bin_Super . . . . .	3
getN_Con_Equi . . . . .	4
getN_Con_Noninf . . . . .	4
getN_Con_Super . . . . .	5
getN_Con_Super_JM1 . . . . .	5
getN_Surv_Equi . . . . .	6
getN_Surv_Noninf . . . . .	6
getN_Surv_Super . . . . .	7
getPwr_Bin_Equi_JM1 . . . . .	7
getPwr_Bin_Equi_JM2 . . . . .	8
getPwr_Bin_Noninf_JM1 . . . . .	9
getPwr_Bin_Noninf_JM2 . . . . .	10
getPwr_Bin_Super_JM1 . . . . .	11
getPwr_Bin_Super_JM2 . . . . .	11
getPwr_Con_Equi_JM1 . . . . .	12
getPwr_Con_Equi_JM2 . . . . .	13
getPwr_Con_Noninf_JM1 . . . . .	14
getPwr_Con_Noninf_JM2 . . . . .	15
getPwr_Con_Super_JM1 . . . . .	15
getPwr_Con_Super_JM2 . . . . .	16
getPwr_Surv_Equi_JM1 . . . . .	17
getPwr_Surv_Equi_JM2 . . . . .	18
getPwr_Surv_Noninf_JM1 . . . . .	19
getPwr_Surv_Noninf_JM2 . . . . .	19
getPwr_Surv_Super_JM1 . . . . .	20
getPwr_Surv_Super_JM2 . . . . .	21

<b>Index</b>	<b>23</b>
--------------	-----------

---

combine\_matrix

*Title*

---

### Description

Title

### Usage

```
combine_matrix(A, B)
```

### Arguments

b

---

getN\_Bin\_Equi

*Title*

---

### Description

Title

### Usage

```
getN_Bin_Equi(p1, p0, cut, alpha, beta, N, r, direct = 1)
```

### Arguments

direct

### Examples

```
(v <- getN_Bin_Noninf(
  p1 = 0.4, p0 = 0.45, cut = 0.2, alpha = 0.025,
  beta = 0.2, N = NA, r = 1
))
getN_Bin_Noninf(
  p1 = 0.4, p0 = 0.45, cut = 0.2, alpha = 0.025,
  beta = NA, N = v$N, r = 1
)
```

---

getN_Bin_Noninf	<i>Title</i>
-----------------	--------------

---

**Description**

Title

**Usage**

```
getN_Bin_Noninf(p1 = p1, p0 = p0, cut, alpha, beta, N, r, direct = 1)
```

**Arguments**

direct

**Examples**

```
(v <- getN_Bin_Noninf(
  p1 = 0.4, p0 = 0.45, cut = 0.2, alpha = 0.025,
  beta = 0.2, N = NA, r = 1
))
getN_Bin_Noninf(
  p1 = 0.4, p0 = 0.45, cut = 0.2, alpha = 0.025,
  beta = NA, N = v$N, r = 1
)
```

---

getN_Bin_Super	<i>Title</i>
----------------	--------------

---

**Description**

Title

**Usage**

```
getN_Bin_Super(p1, p0, alpha, beta, N, r, direct = 1)
```

**Arguments**

direct

**Examples**

```
(v <- getN_Bin_Super(
  p1 = 0.4, p0 = 0.2, alpha = 0.025,
  beta = 0.2, N = NA, r = 1
))
getN_Bin_Super(
  p1 = 0.4, p0 = 0.2, alpha = 0.025,
  beta = NA, N = v$N, r = 1
)
```

---

getN_Con_Equi	<i>Title</i>
---------------	--------------

---

**Description**

Title

**Usage**

```
getN_Con_Equi(delta, sigma, cut, alpha, beta, N, r, direct = 1)
```

**Arguments**

direct

**Examples**

```
(v <- getN_Con_Noninf(
  delta = 0, sigma = 2, cut = 1, alpha = 0.025,
  beta = 0.2, N = NA, r = 1
))
getN_Con_Noninf(
  delta = 0, sigma = 2, cut = 1, alpha = 0.025,
  beta = NA, N = v$N, r = 1
)
```

---

getN_Con_Noninf	<i>Title</i>
-----------------	--------------

---

**Description**

Title

**Usage**

```
getN_Con_Noninf(delta, sigma, cut, alpha, beta, N, r, direct = 1)
```

**Arguments**

direct

**Examples**

```
(v <- getN_Con_Noninf(
  delta = 0, sigma = 2, cut = 1, alpha = 0.025,
  beta = 0.2, N = NA, r = 1
))
getN_Con_Noninf(
  delta = 0, sigma = 2, cut = 1, alpha = 0.025,
  beta = NA, N = v$N, r = 1
)
```

---

`getN_Con_Super`*Title*

---

**Description**

Title

**Usage**

```
getN_Con_Super(delta, sigma, alpha, beta, N, r, direct = 1)
```

**Arguments**

direct

**Examples**

```
(v <- getN_Con_Super(
  delta = 1, sigma = 4, alpha = 0.025,
  beta = 0.2, N = NA, r = 1
))
getN_Con_Super(
  delta = 1, sigma = 4, alpha = 0.025,
  beta = NA, N = v$N, r = 1
)
```

---

`getN_Con_Super_JM1`*Title*

---

**Description**

Title

**Usage**

```
getN_Con_Super_JM1(
  delta_j,
  delta_nj,
  sigma,
  pi,
  alpha,
  beta1,
  N,
  r,
  direct = 1
)
```

**Arguments**

direct

**Examples**

```
getN_Con_Super_JM1(
  delta_j = 0.5, delta_nj = 0.7, sigma = 1,
  pi = 0.5, alpha = 0.025, beta1 = 0.2, N = seq(100, 400, 100), r = 1, direct = 1
)
```

---

getN_Surv_Equi	<i>Title</i>
----------------	--------------

---

**Description**

Title

**Usage**

```
getN_Surv_Equi(delta, cut, alpha, beta, N, r, direct = 1)
```

**Arguments**

direct

**Examples**

```
(v <- getN_Surv_Equi(
  delta = log(1.1), cut = log(1.2), alpha = 0.025,
  beta = 0.2, N = NA, r = 1
))
getN_Surv_Equi(
  delta = log(1.1), cut = log(1.2), alpha = 0.025,
  beta = NA, N = v$N, r = 1
)
```

---

getN_Surv_Noninf	<i>Title</i>
------------------	--------------

---

**Description**

Title

**Usage**

```
getN_Surv_Noninf(delta, cut, alpha, beta, N, r, direct = 1)
```

**Arguments**

direct

Examples

```
(v <- getN_Surv_Noninf(
  delta = log(1.1), cut = log(1.2), alpha = 0.025,
  beta = 0.2, N = NA, r = 1
))
getN_Surv_Noninf(
  delta = log(1.1), cut = log(1.2), alpha = 0.025,
  beta = NA, N = v$N, r = 1
)
```

---

getN_Surv_Super	<i>Title</i>
-----------------	--------------

---

Description

Title

Usage

```
getN_Surv_Super(delta, alpha, beta, N, r, direct = -1)
```

Arguments

direct

Examples

```
(v <- getN_Surv_Super(
  delta = log(0.8), alpha = 0.025,
  beta = 0.2, N = NA, r = 1
))
getN_Surv_Super(
  delta = log(0.8), alpha = 0.025,
  beta = NA, N = v$N, r = 1
)
```

---

getPwr_Bin_Equi_JM1	<i>Title</i>
---------------------	--------------

---

Description

Title

**Usage**

```
getPwr_Bin_Equi_JM1(
  p1_j,
  p0_j,
  p1_nj,
  p0_nj,
  f,
  pi,
  cut,
  alpha,
  N,
  r,
  sim = FALSE,
  nsim = 1000,
  seed = 0
)
```

**Arguments**

seed

**Examples**

```
getPwr_Bin_Equi_JM1(
  p1_j = 0.55, p0_j = 0.65, p1_nj = 0.65, p0_nj = 0.65,
  f = seq(0.1, 0.9, 0.1), pi = 0.5,
  cut = 0.2, alpha = 0.025, N = 400, r = 1, sim = FALSE
)
```

---

getPwr_Bin_Equi_JM2	<i>Title</i>
---------------------	--------------

---

**Description**

Title

**Usage**

```
getPwr_Bin_Equi_JM2(
  pt_i,
  pc_i,
  fi,
  cut,
  alpha,
  N,
  r,
  sim = FALSE,
  nsim = 1000,
  seed = 0
)
```



**Arguments**

seed

**Examples**

```
f_set <- seq(0.1, 0.9, 0.1)
map_dfr(.x = 1:length(f_set), .f = function(i) {
  f <- f_set[i]
  res <- getPwr_Bin_Equi_JM2(
    pt_i = c(0.5, 0.6),
    pc_i = c(0.6, 0.6),
    fi = c(f, 1 - f), cut = 0.3,
    alpha = 0.025, N = 100, r = 1, sim = FALSE
  )$overall
  res$M <- "calc"
  res$f <- f
  res
})
```

---

getPwr\_Bin\_Noninf\_JM1    *Title*

---

**Description**

Title

**Usage**

```
getPwr_Bin_Noninf_JM1(
  p1_j,
  p0_j,
  p1_nj,
  p0_nj,
  f,
  pi,
  cut,
  alpha,
  N,
  r,
  direct = 1,
  sim = FALSE,
  nsim = 1000,
  seed = 0
)
```

**Arguments**

seed

**Examples**

```
getPwr_Bin_Noninf_JM1(
  p1_j = 0.55, p0_j = 0.65, p1_nj = 0.65, p0_nj = 0.65,
  f = seq(0.1, 0.9, 0.1), pi = 0.5,
  cut = 0.2, alpha = 0.025, N = 400, r = 1,
  direct = 1, sim = FALSE
)
```

---

```
getPwr_Bin_Noninf_JM2 Title
```

---

**Description**

Title

**Usage**

```
getPwr_Bin_Noninf_JM2(
  pt_i,
  pc_i,
  fi,
  cut,
  alpha,
  N,
  r,
  direct = 1,
  sim = FALSE,
  nsim = 1000,
  seed = 0
)
```

**Arguments**

seed

**Examples**

```
f_set <- seq(0.1, 0.9, 0.1)
map_dfr(.x = 1:length(f_set), .f = function(i) {
  f <- f_set[i]
  res <- getPwr_Bin_Noninf_JM2(
    pt_i = c(0.5, 0.6),
    pc_i = c(0.6, 0.6),
    fi = c(f, 1 - f), cut = 0.3,
    alpha = 0.025, N = 100, r = 1, direct = 1, sim = FALSE
  )$overall
  res$M <- "calc"
  res$f <- f
  res
})
```

---

getPwr_Bin_Super_JM1	<i>Title</i>
----------------------	--------------

---

**Description**

Title

**Usage**

```
getPwr_Bin_Super_JM1(  
  p1_j,  
  p0_j,  
  p1_nj,  
  p0_nj,  
  f,  
  pi,  
  alpha,  
  N,  
  r,  
  direct,  
  sim = FALSE,  
  nsim = 1000,  
  seed = 0  
)
```

**Arguments**

seed

**Examples**

```
getPwr_Bin_Super_JM1(  
  p1_j = 0.35, p0_j = 0.5, p1_nj = 0.25, p0_nj = 0.5,  
  f = seq(0.1, 0.9, 0.1),  
  pi = 0.5, alpha = 0.025, N = 200, r = 1, direct = -1, sim = FALSE  
)
```

---

getPwr_Bin_Super_JM2	<i>Title</i>
----------------------	--------------

---

**Description**

Title

**Usage**

```
getPwr_Bin_Super_JM2(
  pt_i,
  pc_i,
  fi,
  alpha,
  N,
  r,
  direct = 1,
  sim = FALSE,
  nsim = 1000,
  seed = 0
)
```

**Arguments**

seed

**Examples**

```
f_set <- seq(0.1, 0.9, 0.1)
map_dfr(.x = 1:length(f_set), .f = function(i) {
  f <- f_set[i]
  res <- getPwr_Bin_Super_JM2(
    pt_i = c(0.3, 0.4),
    pc_i = c(0.6, 0.6),
    fi = c(f, 1 - f),
    alpha = 0.025, N = 100, r = 1, direct = -1, sim = FALSE
  )$overall
  res$M <- "calc"
  res$f <- f
  res
})
```

---

getPwr_Con_Equi_JM1	<i>Title</i>
---------------------	--------------

---

**Description**

Title

**Usage**

```
getPwr_Con_Equi_JM1(
  delta_j,
  delta_nj,
  sigma,
  f,
  pi,
  cut,
  alpha,
  N,
```

```

    r,
    sim = FALSE,
    nsim = 1000,
    seed = 0
  )

```

### Arguments

seed

### Examples

```

getPwr_Con_Equi_JM1(
  delta_j = -0.2, delta_nj = -0.1, sigma = 1,
  f = seq(0.1, 0.9, 0.1), pi = 0.5, cut = 0.4, alpha = 0.025,
  N = 400, r = 1, sim = FALSE
)

```

---

getPwr_Con_Equi_JM2	<i>Title</i>
---------------------	--------------

---

### Description

Title

### Usage

```

getPwr_Con_Equi_JM2(
  delta_i,
  sigma,
  fi,
  cut,
  alpha,
  N,
  r,
  sim = FALSE,
  nsim = 1000,
  seed = 0
)

```

### Arguments

seed

### Examples

```

f_set <- seq(0.1, 0.9, 0.1)
map_dfr(.x = 1:length(f_set), .f = function(i) {
  f <- f_set[i]
  res <- getPwr_Con_Equi_JM2(
    delta_i = c(-0.5, 0), sigma = 4,
    fi = c(f, 1 - f), cut = 2,
    alpha = 0.025, N = 200, r = 1, sim = FALSE
  )
})

```

```

    )$overall
    res$M <- "calc"
    res$f <- f
    res
  })

```

---

getPwr\_Con\_Noninf\_JM1    *Title*

---

## Description

Title

## Usage

```

getPwr_Con_Noninf_JM1(
  delta_j,
  delta_nj,
  sigma,
  f,
  pi,
  cut,
  alpha,
  N,
  r,
  direct = 1,
  sim = FALSE,
  nsim = 1000,
  seed = 0
)

```

## Arguments

seed

## Examples

```

getPwr_Con_Noninf_JM1(
  delta_j = -0.2, delta_nj = -0.1, sigma = 1,
  f = seq(0.1, 0.9, 0.1), pi = 0.5, cut = 0.4, alpha = 0.025,
  N = 400, r = 1, direct = 1, sim = FALSE
)

```

---

getPwr\_Con\_Noninf\_JM2    *Title*

---

### Description

Title

### Usage

```
getPwr_Con_Noninf_JM2(  
  delta_i,  
  sigma,  
  fi,  
  cut,  
  alpha,  
  N,  
  r,  
  direct = 1,  
  sim = FALSE,  
  nsim = 1000,  
  seed = 0  
)
```

### Arguments

seed

### Examples

```
f_set <- seq(0.1, 0.9, 0.1)  
map_dfr(.x = 1:length(f_set), .f = function(i) {  
  f <- f_set[i]  
  res <- getPwr_Con_Noninf_JM2(  
    delta_i = c(-0.5, 0), sigma = 4,  
    fi = c(f, 1 - f), cut = 2,  
    alpha = 0.025, N = 200, r = 1, direct = 1, sim = FALSE  
  )$overall  
  res$M <- "calc"  
  res$f <- f  
  res  
})
```

---

getPwr\_Con\_Super\_JM1    *Title*

---

### Description

Title

**Usage**

```
getPwr_Con_Super_JM1(
  delta_j,
  delta_nj,
  sigma,
  f,
  pi,
  alpha,
  N,
  r,
  direct = 1,
  sim = FALSE,
  nsim = 1000,
  seed = 0
)
```

**Arguments**

seed

**Examples**

```
getPwr_Con_Super_JM1(
  delta_j = 0.5, delta_nj = 0.7, sigma = 1,
  f = seq(0.1, 0.9, 0.1),
  pi = 0.5, alpha = 0.025, N = 100, r = 1, direct = 1, sim = FALSE
)
```

---

getPwr_Con_Super_JM2	<i>Title</i>
----------------------	--------------

---

**Description**

Title

**Usage**

```
getPwr_Con_Super_JM2(
  delta_i,
  sigma,
  fi,
  alpha,
  N,
  r,
  direct = 1,
  sim = FALSE,
  nsim = 1000,
  seed = 0
)
```



**Arguments**

seed

**Examples**

```
f_set <- seq(0.1, 0.9, 0.1)
map_dfr(.x = 1:length(f_set), .f = function(i) {
  f <- f_set[i]
  res <- getPwr_Con_Super_JM2(
    delta_i = c(1, 0.8), sigma = 4,
    fi = c(f, 1 - f),
    alpha = 0.025, N = 200, r = 1, direct = 1, sim = FALSE
  )$overall
  res$M <- "calc"
  res$f <- f
  res
})
```

---

getPwr\_Surv\_Equi\_JM1    *Title*

---

**Description**

Title

**Usage**

```
getPwr_Surv_Equi_JM1(
  delta_j,
  delta_nj,
  f,
  pi,
  cut,
  alpha,
  N,
  r,
  lambda0_j = 1,
  lambda0_nj = 1,
  sim = FALSE,
  nsim = 1000,
  seed = 0
)
```

**Arguments**

seed

**Examples**

```
getPwr_Surv_Equi_JM1(
  delta_j = log(1.1), delta_nj = log(1.0),
  f = seq(0.1, 0.9, 0.1), cut = log(1.3),
  pi = 0.5, alpha = 0.025, N = 400, r = 1, sim = FALSE
)
```

---

getPwr_Surv_Equi_JM2	<i>Title</i>
----------------------	--------------

---

**Description**

Title

**Usage**

```
getPwr_Surv_Equi_JM2(
  delta_i,
  fi,
  cut,
  alpha,
  N,
  r,
  direct = -1,
  lambda0_i = 1,
  sim = FALSE,
  nsim = 1000,
  seed = 0
)
```

**Arguments**

seed

**Examples**

```
f_set <- seq(0.1, 0.9, 0.1)
map_dfr(.x = 1:length(f_set), .f = function(i) {
  f <- f_set[i]
  res <- getPwr_Surv_Equi_JM2(
    delta_i = c(log(1.1), log(1.0)),
    fi = c(f, 1 - f), cut = log(1.3),
    alpha = 0.025, N = 300, r = 1, direct = -1, sim = FALSE
  )$overall
  res$M <- "calc"
  res$f <- f
  res
})
```

---

`getPwr_Surv_Noninf_JM1`*Title*

---

**Description**

Title

**Usage**

```
getPwr_Surv_Noninf_JM1(  
  delta_j,  
  delta_nj,  
  f,  
  pi,  
  cut,  
  alpha,  
  N,  
  r,  
  direct = -1,  
  lambda0_j = 1,  
  lambda0_nj = 1,  
  sim = FALSE,  
  nsim = 1000,  
  seed = 0  
)
```

**Arguments**

direct

**Examples**

```
getPwr_Surv_Noninf_JM1(  
  delta_j = log(1.1), delta_nj = log(1.0),  
  f = seq(0.1, 0.9, 0.1), cut = log(1.3),  
  pi = 0.5, alpha = 0.025, N = 400, r = 1,  
  direct = -1, sim = FALSE  
)
```

---

`getPwr_Surv_Noninf_JM2`*Title*

---

**Description**

Title

**Usage**

```
getPwr_Surv_Noninf_JM2(
  delta_i,
  fi,
  cut,
  alpha,
  N,
  r,
  direct = -1,
  lambda0_i = 1,
  sim = FALSE,
  nsim = 1000,
  seed = 0
)
```

**Arguments**

seed

**Examples**

```
f_set <- seq(0.1, 0.9, 0.1)
map_dfr(.x = 1:length(f_set), .f = function(i) {
  f <- f_set[i]
  res <- getPwr_Surv_Noninf_JM2(
    delta_i = c(log(1.1), log(1.0)),
    fi = c(f, 1 - f), cut = log(1.3),
    alpha = 0.025, N = 300, r = 1, direct = -1, sim = FALSE
  )$overall
  res$M <- "calc"
  res$f <- f
  res
})
```

---

getPwr\_Surv\_Super\_JM1 *Title*

---

**Description**

Title

**Usage**

```
getPwr_Surv_Super_JM1(
  delta_j,
  delta_nj,
  f,
  pi,
  alpha,
  N,
  r,
  criterion,
```

```

    direct = -1,
    lambda0_j = 1,
    lambda0_nj = 1,
    sim = FALSE,
    nsim = 1000,
    seed = 0
  )

```

### Arguments

seed

### Examples

```

getPwr_Surv_Super_JM1(
  delta_j = log(0.8), delta_nj = log(0.6),
  f = seq(0.1, 0.9, 0.1),
  pi = 0.5, alpha = 0.025, N = 200, r = 1,
  criterion = 1, direct = -1, sim = FALSE
)

```

---

getPwr\_Surv\_Super\_JM2 *Title*

---

### Description

Title

### Usage

```

getPwr_Surv_Super_JM2(
  delta_i,
  fi,
  alpha,
  N,
  r,
  direct = -1,
  lambda0_i = 1,
  sim = FALSE,
  nsim = 1000,
  seed = 0
)

```

### Arguments

seed

**Examples**

```
f_set <- seq(0.1, 0.9, 0.1)
map_dfr(.x = 1:length(f_set), .f = function(i) {
  f <- f_set[i]
  res <- getPwr_Surv_Super_JM2(
    delta_i = c(log(0.8), log(0.6)),
    fi = c(f, 1 - f),
    alpha = 0.025, N = 300, r = 1, direct = -1, sim = FALSE
  )$overall
  res$M <- "calc"
  res$f <- f
  res
})
```

# Index

`combine_matrix`, [2](#)

`getN_Bin_Equi`, [2](#)  
`getN_Bin_Noninf`, [3](#)  
`getN_Bin_Super`, [3](#)  
`getN_Con_Equi`, [4](#)  
`getN_Con_Noninf`, [4](#)  
`getN_Con_Super`, [5](#)  
`getN_Con_Super_JM1`, [5](#)  
`getN_Surv_Equi`, [6](#)  
`getN_Surv_Noninf`, [6](#)  
`getN_Surv_Super`, [7](#)  
`getPwr_Bin_Equi_JM1`, [7](#)  
`getPwr_Bin_Equi_JM2`, [8](#)  
`getPwr_Bin_Noninf_JM1`, [9](#)  
`getPwr_Bin_Noninf_JM2`, [10](#)  
`getPwr_Bin_Super_JM1`, [11](#)  
`getPwr_Bin_Super_JM2`, [11](#)  
`getPwr_Con_Equi_JM1`, [12](#)  
`getPwr_Con_Equi_JM2`, [13](#)  
`getPwr_Con_Noninf_JM1`, [14](#)  
`getPwr_Con_Noninf_JM2`, [15](#)  
`getPwr_Con_Super_JM1`, [15](#)  
`getPwr_Con_Super_JM2`, [16](#)  
`getPwr_Surv_Equi_JM1`, [17](#)  
`getPwr_Surv_Equi_JM2`, [18](#)  
`getPwr_Surv_Noninf_JM1`, [19](#)  
`getPwr_Surv_Noninf_JM2`, [19](#)  
`getPwr_Surv_Super_JM1`, [20](#)  
`getPwr_Surv_Super_JM2`, [21](#)