Package ‘miRecSurv’

September 25, 2020

Type Package
Title Left-Censored Recurrent Events Survival Models
Version 0.0.1
Maintainer David Moriña <dmorina@ub.edu>
Depends R (>= 3.5.0), COMPoissonReg, matrixStats, survival, stringi
License GPL (>= 2)
Encoding UTF-8
LazyData true
NeedsCompilation no
Author David Moriña [aut, cre] (<https://orcid.org/0000-0001-5949-7443>), Gilma Hernández-Herrera [aut], Albert Navarro [aut]
Repository CRAN
Date/Publication 2020-09-25 12:50:02 UTC

R topics documented:

  miRecSurv-package .................................................. 2
  recEvFit .......................................................... 2
  sim.data .......................................................... 4

Index 5
miRecSurv-package  

**Left-Censored Recurrent Events Survival Models**

**Description**


**Details**

- **Package:** miRecSurv
- **Type:** Package
- **Version:** 0.0.1
- **Date:** 2020-9-23
- **License:** GPL version 2 or newer
- **LazyLoad:** yes

**Author(s)**

David Moriña (University of Barcelona), Gilma Hernández-Herrera (Universidad de Antioquia), Albert Navarro (Universitat Autònoma de Barcelona)

Mantainer: David Moriña <dmorina@ub.edu>

**See Also**

recEvFit

**Examples**

```r
data(sim.data)
fit <- recEvFit(Surv(start2, stop2, status)~x+x.1+x.2, data=sim.data,
               id="nid", prevEp = "obs.episode",
               riskBef = "risk.bef", oldInd = "old", frailty=FALSE, m=5)
fit[[2]]  ### Fit summary table
head(fit[[1]])  ### Data with imputed number of previous episodes
```

---

recEvFit  

**Left-censored recurrent events survival models**

**Description**

The function allows the user to fit recurrent events survival models.
Usage

recEvFit(formula, data, id, prevEp, riskBef, oldInd, frailty=FALSE, m=5, seed=NA)

Arguments

formula a formula object, with the response on the left of a ~ operator, and the terms on the right. The response must be a survival object as returned by the Surv function.
data a data.frame in which to interpret the variables named in the formula.
id subject identifier.
prevEp known previous episodes.
riskBef indicator for new individual in the cohort (riskBef==FALSE) or subject who was at risk before the start of follow-up (riskBef==TRUE).
oldInd time an individual has been at risk prior to the follow-up.
frailty should the model include a frailty term. Defaults to FALSE.
m number of multiple imputations. The default is m=5.
seed an integer that is used as argument by the set.seed function for offsetting the random number generator. Default is to leave the random number generator alone.

Value

A list with two elements. The first element is the summary table of the fitted model and the second element of the list is the original data.frame with the columns corresponding to the multiple imputed values for the previous episodes.

Author(s)

David Moriña (University of Barcelona), Gilma Hernández-Herrera (Universidad de Antioquia), Albert Navarro (Universitat Autònoma de Barcelona)

Mantainer: David Moriña <dmorina@ub.edu>

See Also

miRecSurv-package

Examples

data(sim.data)
fit <- recEvFit(Surv(start2, stop2, status)~x+x.1+x.2, data=sim.data, id="nid", prevEp = "obs.episode",
riskBef = "risk.bef", oldInd = "old", frailty=FALSE, m=5)
fit[[2]] ### Fit summary table
head(fit[[1]]) ### Data with imputed number of previous episodes
**Description**

This data corresponds to a recurrent events simulated cohort using the `survsim` package.

**Usage**

`sim.data`

**Format**

A `data.frame` with 668 rows and 17 columns.
Index

* datasets
  sim.data, 4

* package
  miRecSurv-package, 2

* radir
  recEvFit, 2

miRecSurv (miRecSurv-package), 2
miRecSurv-package, 2

recEvFit, 2, 2

sim.data, 4