Package ‘jskm’

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Title Kaplan-Meier Plot with 'ggplot2'
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Description The function 'jskm()' creates publication quality Kaplan-Meier plot with at risk tables below. 'svyjskm()' provides plot for weighted Kaplan-Meier estimator.
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Description

Creates a Kaplan-Meier plot with at risk tables below for survfit object.

Usage

```r
jskm(sfit, table = FALSE, xlabs = "Time-to-event", ylabs = "Survival probability", xlims = c(0, max(sfit$time)), ylims = c(0, 1), surv.scale = c("default", "percent"), ystratalabs = names(sfit$strata), ystrataname = "Strata", timeby = signif(max(sfit$time)/7, 1), main = "", pval = FALSE, pval.size = 5, pval.coord = c(NULL, NULL), pval.testname = F, marks = TRUE, shape = 3, legend = TRUE, legendposition = c(0.85, 0.8), ci = FALSE, subs = NULL, label.nrisk = "Numbers at risk", size.label.nrisk = 10, linecols = "Set1", dashed = FALSE, cumhaz = F, cluster.option = "None", cluster.var = NULL, data = NULL, ...)
```

Arguments

- `sfit` : a survfit object
- `table` : logical: Create a table graphic below the K-M plot, indicating at-risk numbers?
- `xlabs` : x-axis label
- `ylabs` : y-axis label
- `xlims` : numeric: list of min and max for x-axis. Default = c(0,max(sfit$time))
- `ylims` : numeric: list of min and max for y-axis. Default = c(0,1)
- `surv.scale` : scale transformation of survival curves. Allowed values are "default" or "percent".
- `ystratalabs` : character list. A list of names for each strata. Default = names(sfit$strata)
- `ystrataname` : The legend name. Default = "Strata"
- `timeby` : numeric: control the granularity along the time-axis; defaults to 7 time-points. Default = signif(max(sfit$time)/7, 1)
- `main` : plot title
- `pval` : logical: add the pvalue to the plot?
- `pval.size` : numeric value specifying the p-value text size. Default is 5.
- `pval.coord` : numeric vector, of length 2, specifying the x and y coordinates of the p-value. Default values are NULL
- `pval.testname` : logical: add '(Log-rank)' text to p-value. Default = F
- `marks` : logical: should censoring marks be added?
shape what shape should the censoring marks be, default is a vertical line
legend logical. should a legend be added to the plot?
legendposition numeric. x, y position of the legend if plotted. Default=c(0.85,0.8)
ci logical. Should confidence intervals be plotted. Default = FALSE
subs = NULL,
label.nrisk Numbers at risk label. Default = "Numbers at risk"
size.label.nrisk Font size of label.nrisk. Default = 10
linecols Character. Colour brewer pallettes too colour lines. Default ="Set1", "black" for black with dashed line.
dashed logical. Should a variety of linetypes be used to identify lines. Default = FALSE
cumhaz Show cumulative hazard function, Default: F
cluster.option Cluster option for p value, Option: "None", "cluster", "frailty", Default: "None"
cluster.var Cluster variable
data select specific data - for reactive input. Default = NULL
...

Details

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Author(s)

Jinseob Kim, but heavily modified version of a script created by Michael Way. https://github.com/michaelway/ggkm/ I have packaged this function, added functions to namespace and included a range of new parameters.

Examples

library(survival)
data(colon)
fit <- survfit(Surv(time,status)~rx, data=colon)
jskm(fit, timeby=500)
svyjskm

Creates a Weighted Kaplan-Meier plot - svykm.object in survey package

Description

Creates a Weighted Kaplan-Meier plot - svykm.object in survey package

Usage

svyjskm(sfit, xlabs = "Time-to-event", ylabs = "Survival probability", xlims = NULL, ylims = c(0, 1), ystratalabs = NULL, ystrataname = NULL, surv.scale = c("default", "percent"), timeby = NULL, main = "", pval = FALSE, pval.size = 5, pval.coord = c(NULL, NULL), pval.testname = F, legend = TRUE, legendposition = c(0.85, 0.8), ci = NULL, linecols = "Set1", dashed = FALSE, cumhaz = F, design = NULL, subs = NULL, table = F, label.nrisk = "Numbers at risk", size.label.nrisk = 10, ...)

Arguments

sfit a svykm object
xlabs x-axis label, Default: 'Time-to-event'
ylabs y-axis label.
xlims numeric: list of min and max for x-axis. Default: NULL
ylims numeric: list of min and max for y-axis. Default: c(0, 1)
ystratalabs character list. A list of names for each strata. Default: NULL
ystrataname The legend name. Default: 'Strata'
surv.scale scale transformation of survival curves. Allowed values are "default" or "percent".
timeby numeric control the granularity along the time-axis; defaults to 7 time-points.
main plot title, Default: "
pval logical: add the pvalue to the plot?, Default: FALSE
pval.size numeric value specifying the p-value text size. Default is 5.
pval.coord numeric vector, of length 2, specifying the x and y coordinates of the p-value. Default values are NULL
pval.testname logical: add '(Log-rank)' text to p-value. Default = F
legend logical. should a legend be added to the plot? Default: TRUE
legendposition numeric. x, y position of the legend if plotted. Default: c(0.85, 0.8)
ci logical. Should confidence intervals be plotted. Default = NULL
linecols Character. Colour brewer pallettes too colour lines. Default: 'Set1', "black" for black with dashed line.
dashed logical. Should a variety of linetypes be used to identify lines. Default: FALSE
cumhaz Show cumulative hazard function, Default: F
design Data design for reactive design data, Default: NULL
subs = NULL,
table logical: Create a table graphic below the K-M plot, indicating at-risk numbers?
label.nrisk Numbers at risk label. Default = "Numbers at risk"
size.label.nrisk Font size of label.nrisk. Default = 10

Details

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plot

Examples

library(survey)
data(pbc, package="survival")
pbc$randomized <- with(pbc, !is.na(trt) & trt>0)
biasmodel <- glm(randomized=age*edema, data=pbc)
pbc$randprob <- fitted(biasmodel)
dpbc <- svydesign(id=~1, prob=~randprob, strata=~edema, data=subset(pbc,randomized))
s1 <- svykm(Surv(time,status>0)~sex, design=dpbc)
svyjskm(s1)
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