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,
    cut.landmark = NULL,
    showpercent = F,
    ...
)
```

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)
showpercent Shows the percentages on the right side.
...

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/](https://github.com/michaelway/ggkm/) I have packaged this function, added functions to namespace and included a range of new parameters.

Examples

```r
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

```r
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),
cl = NULL,
linecols = "Set1",
dashed = FALSE,
cumhaz = F,
```

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design = NULL,
subs = NULL,
table = F,
label.nrisk = "Numbers at risk",
size.label.nrisk = 10,
cut.landmark = NULL,
showpercent = F,
...)

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 cumulaive incidence 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
cut.landmark cut-off for landmark analysis, Default = NULL
showpercent Shows the percentages on the right side.
...
Details

Value

plot

Examples

```r
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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