Package 'optband'

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Type Package

Title 'surv' Object Confidence Bands Optimized by Area

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Description Given a certain coverage level, obtains simultaneous confidence bands for the survival and cumulative hazard functions such that the area between is minimized. Produces an approximate solution based on local time arguments.

Depends R (>= 3.1.0)

Imports utils, LambertW

License GPL-2 | GPL-3

LazyData TRUE

URL https://github.com/seasamgo/optband

BugReports http://github.com/seasamgo/optband/issues

RoxygenNote 5.0.1

Suggests stats, survival, km.ci, knitr, rmarkdown

VignetteBuilder knitr, rmarkdown

NeedsCompilation no

R topics documented:

opt.ci *Confidence bands optimized by area*

Description

opt.ci obtains simultaneous confidence bands for the survival or cumulative-hazard functions such that the area between is minimized.

Usage

```
opt.ci(survi, conf.level = 0.95, fun = "surv", tl = NA, tu = NA)
```

Arguments

survi	a survfit object.
conf.level	desired coverage level.
fun	"surv" for survival function and "cumhaz" for the cumulative-hazard. function, with "surv" as the default.
tl	a lower bound for truncation.
tu	an upper bound for truncation.

Details

Produces an approximate solution based on local time arguments.

Value

A survfit object with optimized confidence bands.

Examples

```
library(survival)
# fit and plot a Kaplan-Meier curve
fit <- survfit(Surv(stop, event) ~ 1, data=bladder)
plot(fit)
fit2 <- opt.ci(fit)
plot(fit2)
```

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