Package: compareCstat (via r-universe)

June 2, 2026

Title Compare C-Statistics with Bootstrapped Confidence Intervals

Version 0.1.0

Description Provides a function to compare C-statistics (concordance statistics) between two survival models using bootstrap resampling. Returns confidence intervals and a p-value for the difference in C-statistics. Useful for model evaluation and comparison.

License MIT + file LICENSE

Encoding UTF-8

LazyData true

Depends R (>= 3.5.0)

Imports boot

Suggests survival

RoxygenNote 7.3.2

URL https://github.com/Lemonade0924/compareCstat

BugReports https://github.com/Lemonade0924/compareCstat/issues

Repository https://lemonade0924.r-universe.dev

Date/Publication 2025-04-03 04:27:48 UTC

RemoteUrl https://github.com/lemonade0924/comparecstat

RemoteRef HEAD

RemoteSha e0e52643dff01a83278ca442395f3ce27b47ea5b

Contents

compare_c_stat *Compare C-statistics Between Two Models with Bootstrapped CIs*

Description

This function compares the C-statistics of two fitted models using bootstrap resampling.

Usage

```
compare_c_stat(model_raw, model_ext, data, R = 1000, ci_type = "perc")
```

Arguments

model_raw	A fitted model (e.g., coxph) representing the base model.
model_ext	A fitted model (e.g., coxph) representing the extended model.
data	The dataset used for fitting the models.
R	Number of bootstrap replications. Default is 1000.
ci_type	Type of confidence interval to return ("perc", "norm", "basic", etc.).

Value

A data frame showing C-statistics for each model, their bootstrapped confidence intervals, and the p-value for the difference.

Examples

```
library(survival)
data(lung)
model1 <- coxph(Surv(time, status) ~ age, data = lung)
model2 <- coxph(Surv(time, status) ~ age + sex, data = lung)
compare_c_stat(model1, model2, data = lung, R = 500)
```

Index