Package 'CoxR2'

January 20, 2025

Type Package

Title R-Squared Measure Based on Partial LR Statistic, for the Cox PH Regression Model

Version 1.0

Date 2020-02-28

Author Hyeri You, Ronghui Xu

Maintainer Hyeri You <h2you@health.ucsd.edu>

Description Calculate the R-squared, aka explained randomness, based on the partial likelihood ratio statistic under the Cox Proportional Hazard model [J O'Quigley, R Xu, J Stare (2005) <doi:10.1002/sim.1946>].

Depends survival, stats

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NeedsCompilation no

Repository CRAN

Date/Publication 2020-03-19 14:10:08 UTC

Contents

`coxr2` *R-Squared under the Cox model*

Description

Calculate the R-squared, aka explained randomness, based on the partial likelihood ratio statistic under the Cox model.

Usage

```
##object is the result of a 'coxph'
coxr2(object)
```

Arguments

object	The result of a coxph fit

Details

Calculate the R-squared based on the partial likelihood ratio statistic under the Cox model. Difference in log partial likelihoods between the fitted model and the null model with no regressors is divided by the number of uncensored events, while the existing summary function divides it by the number of total observations.

Value

nevent	number of uncensored events
logtest	partial likelihood ratio test statistics
rsq	explained randomness

Author(s)

Hyeri You, Rounghui Xu

References

John O'Quigley, Ronghui Xu and Janez Stare, (2005), Explained randomness in proportional hazards models, STATISTICS IN MEDICINE, 24:479-489.

See Also

coxph, summary.coxph

Examples

```
# Create the simplest test data set
test <- list(time=c(4,3,1,1,2,2,3),
             event =c(1,1,1,0,1,1,0),
             x =c(5,2,1,1,1,5,5))

# Fit a Cox model
coxmodel <- coxph(Surv(time, event ) ~ x , test)

coxr2(coxmodel)
```

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