

Package: CoxR2 (via r-universe)

May 14, 2026

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

License GPL-2

NeedsCompilation no

Repository <https://cranhaven.r-universe.dev>

Date/Publication 2026-05-14 12:02:00 UTC

RemoteUrl <https://github.com/cranhaven/cranhaven.r-universe.dev>

RemoteRef package/CoxR2

RemoteSha d3754ffb011684be4593b2ec243893c6b63555d8

RemoteSubdir CoxR2

Contents

coxr2	2
Index	4

`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

<code>nevent</code>	number of uncensored events
<code>logtest</code>	partial likelihood ratio test statistics
<code>rsq</code>	explained randomness

Author(s)

Hyeri You, Ronghui 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)
```

Index

coxr2, [2](#)