Package 'CoxR2'

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Type Package

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

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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

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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)

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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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