Package 'adjROC'

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Type Package

Title Computing Sensitivity at a Fix Value of Specificity and Vice Versa

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Description For a binary classification the adjusted sensitivity and specificity are measured for a given fixed threshold. If the threshold for either sensitivity or specificity is not given, the crossing point between the sensitivity and specificity curves are returned.

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Imports ROCit, ggplot2

Encoding UTF-8

RoxygenNote 7.1.2

URL https://github.com/haghish/adjROC,
https://www.sv.uio.no/psi/english/people/aca/haghish/

BugReports https://github.com/haghish/adjROC/issues

NeedsCompilation no

Repository CRAN

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R topics documented:

adjroc *adjroc*

Description

computes adjusted sensitivity, adjusted specificity, or the crossing point between sensitivity and specificity for different thresholds

Usage

```
adjroc(
  score,
  class,
  method = "emp",
  sensitivity = NULL,
  specificity = NULL,
  plot = FALSE
)
```

Arguments

score	A numeric array of diagnostic score i.e. the estimated probability of each diagnosis
class	A numeric array of equal length of "score", including the actual class of the observations
method	Specifies the method for estimating the ROC curve. Three methods are supported, which are "empirical", "binormal", and "nonparametric"
sensitivity	numeric. Specify the threshold of sensitivity
specificity	numeric. Specify the threshold of specificity
plot	logical. if TRUE, the sensitivity and specificity will be plotted

Value

data.frame including cutoff point, and adjusted sensitivity and specificity based on the specified threshold

Examples

```
# random classification and probability score
score <- runif(10000, min=0, max=1)
class <- sample(x = c(1,0), 10000, replace=TRUE)

# calculate adjusted sensitivity, when specificity threshold is 0.90:
adjroc(score = score, class = class, specificity = 0.9, plot = TRUE)

# calculate adjusted specificity, when sensitivity threshold equals 0.9
```

```
adjroc(score = score, class = class, sensitivity = 0.9, plot = TRUE)

# calculate the meeting point between sensitivity and specificity
adjroc(score = score, class = class, plot = TRUE)
```

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