

# Package ‘adjROC’

March 23, 2022

**Type** Package

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

**Version** 0.2.0

**Author** E. F. Haghish

**Maintainer** E. F. Haghish <haghish@uio.no>

**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.

**License** MIT + file LICENSE

**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

**Date/Publication** 2022-03-23 13:30:06 UTC

## R topics documented:

adjroc . . . . .	2
<b>Index</b>	<b>4</b>

---

`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**

<code>score</code>	A numeric array of diagnostic score i.e. the estimated probability of each diagnosis
<code>class</code>	A numeric array of equal length of "score", including the actual class of the observations
<code>method</code>	Specifies the method for estimating the ROC curve. Three methods are supported, which are "empirical", "binormal", and "nonparametric"
<code>sensitivity</code>	numeric. Specify the threshold of sensitivity
<code>specificity</code>	numeric. Specify the threshold of specificity
<code>plot</code>	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)
```

# Index

adjroc, [2](#)