

Your Paper

You

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Abstract

Your abstract.

1 Introduction

ROC curve it is used to assess the accuracy of the model, or the problem

2 True negative

The really result is negative and the test is negative

3 True positive

The really result is positive and the test is positive.

4 False negative

The really result is positive and the test is negative.

5 False positive

The really result is negative and the test is positive.

6 Sensitivity or True Positive Rate

Probability of test be positive given that the is really positive. $\frac{TP}{TP+FN}$

7 Specificity or True Negative Rate

The probability of test be negative given that the is really negative. $\frac{TN}{TN+FP}$

8 Positive predicted values

The probability of get a really positive result in the person who tested positive.
 $\frac{TP}{TP+FP}$

9 Negative predicted values

The probability of get really negative result in the persons who tested negative. It is a measure of accuracy of the test, for instance if a sample of 100 persons, we get 100 negative test and really 100 person dont have disease we can think this diagnostic test is very efficient. $\frac{TN}{TN+FN}$

	Disease (Positive)	No-disease (Negative)
Test Positive	True Positive	False Positive
Test Negative	False Negative	True Negative

10 Receiver Operating Characteristic

Plot false positive rate against true positive rate.

According to the ?? table the previous concepts could be translate in:

The table is known as 2×2 table and is good. In some cases is better a more sensitivity test than a specificity, for instance in credit risk we prefer classify a individual that not pay correctly than a individual that pay me that was classify as not.

if the event is positive (not pay) for us the better metric is sensitivity, positive predicted values (is also a good metric to measure the efficiency).

11 Validity inter e intra models

We need check the robustesnesss of the models, in different samples or according to variations. Take in mind that could vary it is more perfectly in origin to reduce the lost.