

XLSTAT 2015.2.01.17315 - ROC Curves - on 5/3/2015 at 18:12:14

Event data: Workbook = LV\_NB / Sheet = LV\_NB / Range = LV\_NB!\$C:\$C / 6681 rows and 1 column

Test data: Workbook = LV\_NB / Sheet = LV\_NB / Range = LV\_NB!\$E:\$E / 6681 rows and 1 column

Size (%): 95 / Clopper-Pearson

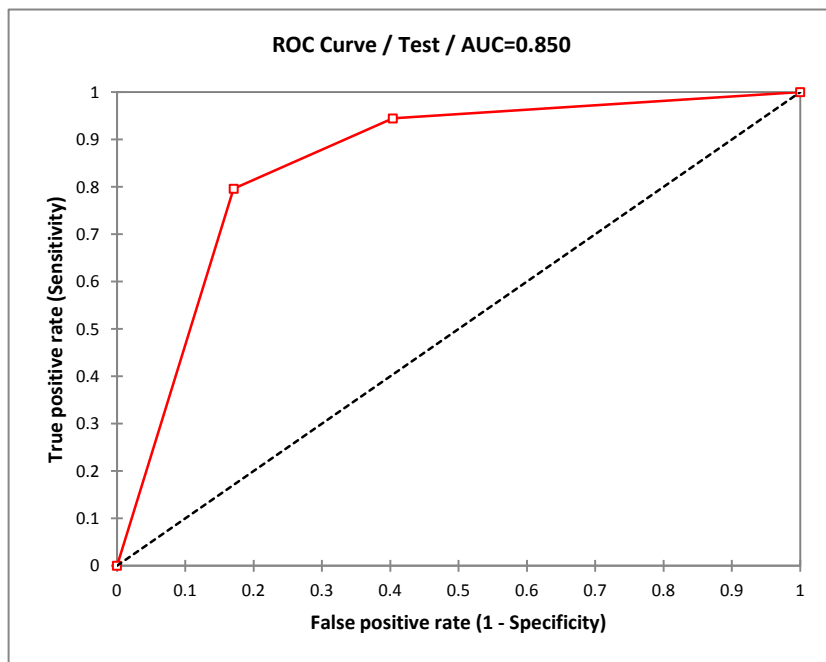
Area under the curve (Variance): Hanley & McNeil

Costs: TP = 1 / TN = 1 / FP = 1 / FN = 1

Summary statistics (Test):

Variable	Observation	with missing	without missing	Minimum	Maximum	Mean	std. deviation
Test	6681	0	6681	1.000	5.000	3.028	1.785

Event	Frequency	%
1	2357	35%
3	1491	22%
5	2833	42%
Prevalence	0.353	35%

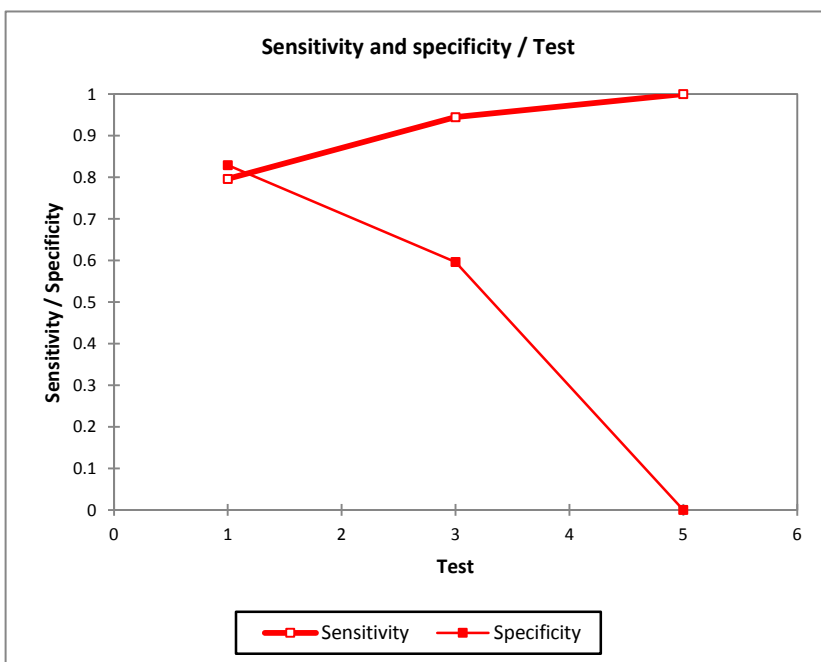
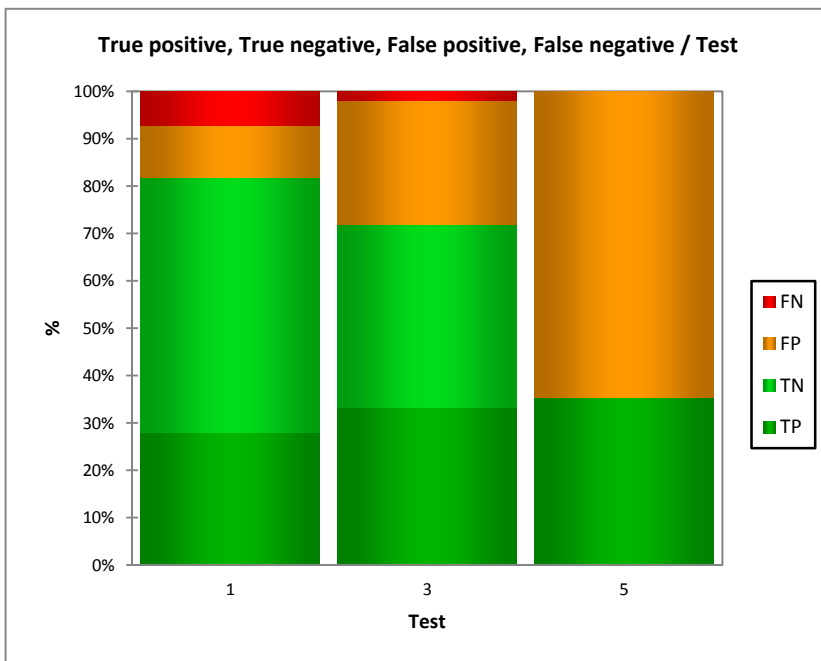


ROC analysis:

Test	Sensitivity er bound (9er bound (9			Specificity er bound (9er bound (9			Cost	PPV
1.000	0.796	0.779	0.812	0.829	0.817	0.840	6681	0.717
3.000	0.944	0.934	0.953	0.596	0.581	0.611	6681	0.560

5.000	1.000	0.998	1.000	0.000	0.000	0.001	6681	0.353
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*Test is positive if Test <= threshold value*



Area under the curve (AUC):

AUC	standard error bound (Ser bound (95%))		
0.850	0.005	0.840	0.861

Comparison of the AUC to 0.5:

95% confidence interval on the difference between the AUC and 0.5 (Two-tailed test):

] 0.340, 0.361 [

Difference	0.350
z (Observed)	65.440
z (Critical value)	1.960
p-value (Two-tailed)	< 0.0001
alpha	0.05

Test interpretation:

H<sub>0</sub>: The AUC is equal to 0.5.

H<sub>a</sub>: The AUC is different from 0.5.

As the computed p-value is lower than the significance level  $\alpha=0.05$ , one should reject the null hypothesis H<sub>0</sub>, and accept the alternative hypothesis H<sub>a</sub>.

The risk to reject the null hypothesis H<sub>0</sub> while it is true is lower than 0.01%.

NPV	LR+	LR-	TP	TN	FP	FN	tivity+Spec	Accuracy
<b>0.882</b>	<b>4.657</b>	<b>0.246</b>	<b>1876</b>	<b>3585</b>	<b>739</b>	<b>481</b>	<b>1.625</b>	<b>0.817</b>
0.952	2.339	0.093	2226	2578	1746	131	1.541	0.719

	1.000	2357	0	4324	0	1.000	0.353
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