

XLSTAT 2015.2.01.17315 - ROC Curves - on 5/3/2015 at 18:16:43

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

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

Size (%): 95 / Clopper-Pearson

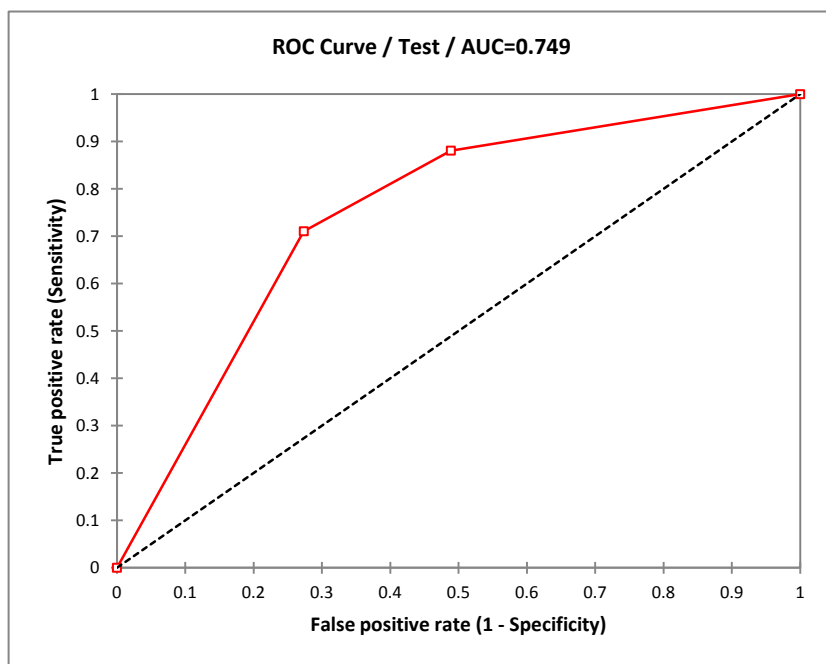
Area under the curve (Variance): Hanley & McNeil

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	1803	27%
3	1154	17%
5	3724	56%
Prevalence	0.270	27%

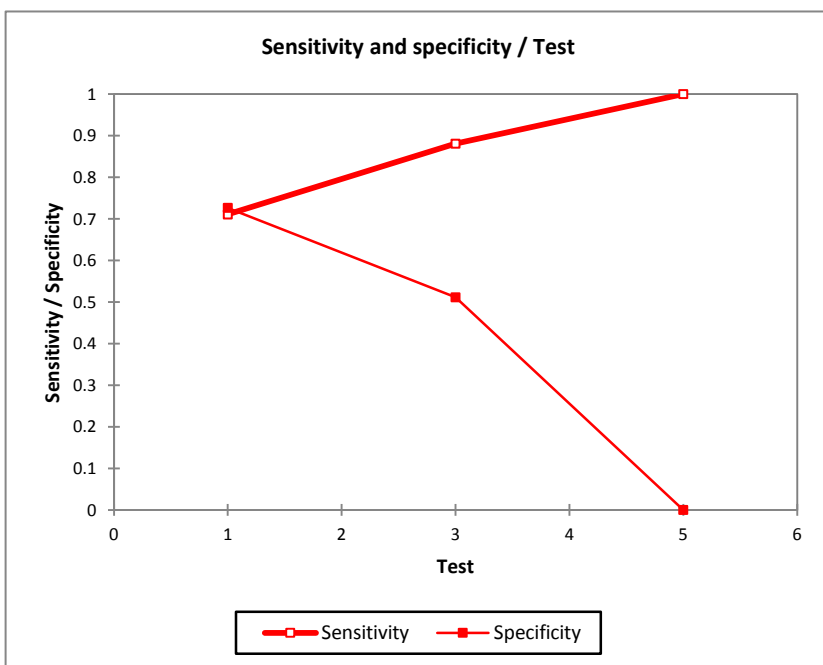
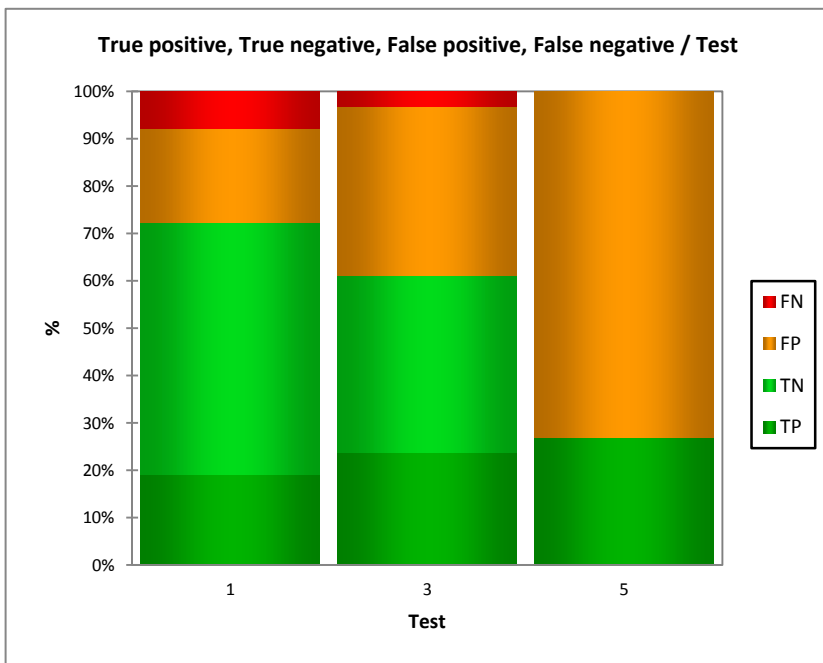


ROC analysis:

Test	Sensitivity	er bound (95%)	er bound (95%)	Specificity	er bound (95%)	er bound (95%)	Cost	PPV
1.000	0.710	0.689	0.731	0.727	0.714	0.739	6681	0.490
3.000	0.881	0.865	0.895	0.511	0.497	0.525	6681	0.400

5.000	1.000	0.997	1.000	0.000	0.000	0.001	6681	0.270
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Test is positive if Test <= threshold value



Area under the curve (AUC):

AUC	standard error bound (Ser bound (95%))		
0.749	0.007	0.735	0.763

Comparison of the AUC to 0.5:

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

] 0.235, 0.263 [

Difference	0.249
z (Observed)	34.436
z (Critical value)	1.960
p-value (Two-tailed)	< 0.0001
alpha	0.05

Test interpretation:

H₀: The AUC is equal to 0.5.

H_a: 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 H₀, and accept the alternative hypothesis H_a.

The risk to reject the null hypothesis H₀ while it is true is lower than 0.01%.

NPV	LR+	LR-	TP	TN	FP	FN	sensitivity+Spec	Accuracy
0.872	2.598	0.398	1281	3544	1334	522	1.437	0.722
0.921	1.802	0.233	1588	2494	2384	215	1.392	0.611

	1.000	1803	0	4878	0	1.000	0.270
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