

XLSTAT 2015.2.01.17315 - ROC Curves - on 5/3/2015 at 18:15:46

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

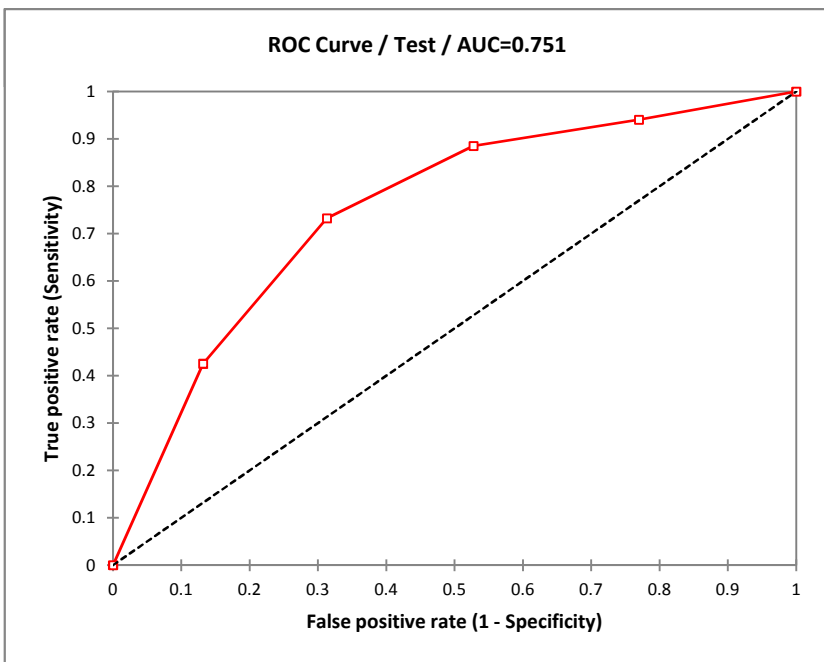
Area under the curve (Variance): Hanley & McNeil

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

Summary statistics (Test):

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

Event	Frequency	%
1	1248	19%
2	555	8%
3	1154	17%
4	2299	34%
5	1425	21%
Prevalence	0.187	19%

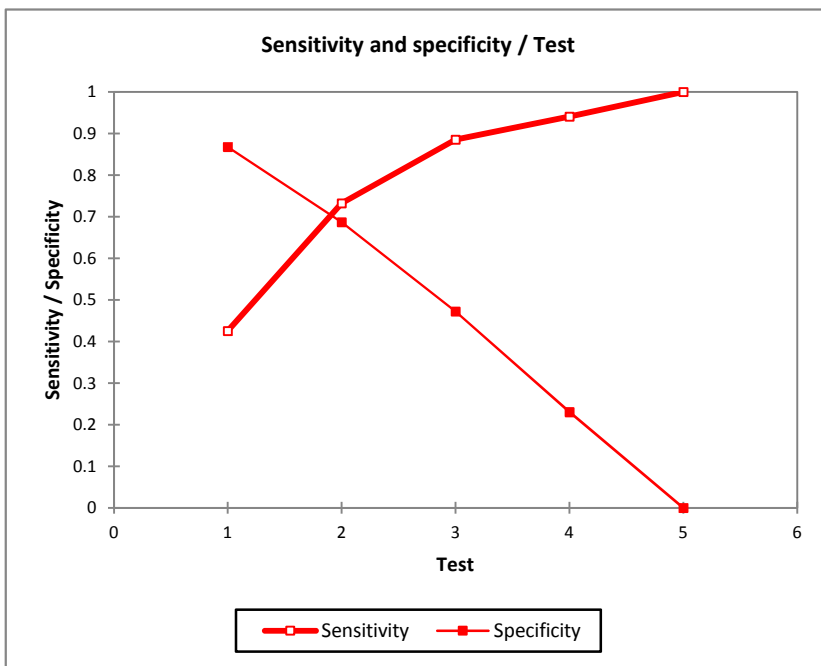
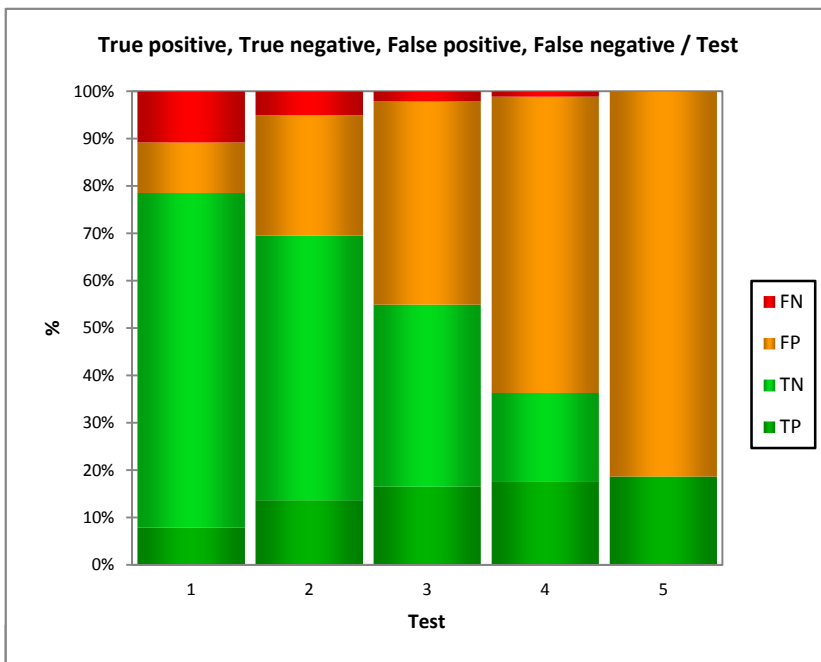


ROC analysis:

Test	Sensitivity	er bound (95%)	er bound (95%)	Specificity	er bound (95%)	er bound (95%)	Cost	PPV
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1.000	0.425	0.398	0.454	0.868	0.859	0.877	6681	0.425
2.000	0.732	0.707	0.757	0.687	0.674	0.699	6681	0.350
3.000	0.885	0.866	0.902	0.472	0.459	0.486	6681	0.278
4.000	0.941	0.926	0.953	0.230	0.219	0.242	6681	0.219
5.000	1.000	0.996	1.000	0.000	0.000	0.001	6681	0.187

Test is positive if Test <= threshold value



Area under the curve (AUC):

AUC	standard error	lower bound (95%)	upper bound (95%)
0.751	0.008	0.734	0.767

Comparison of the AUC to 0.5:

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

] 0.234, 0.267 [

Difference	0.251
z (Observed)	29.753
z (Critical value)	1.960
p-value (Two-tailed)	< 0.0001
alpha	0.05

Test interpretation:

H0: The AUC is equal to 0.5.

Ha: 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 Ha.

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
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0.868	3.224	0.662	531	4716	717	717	1.294	0.785
0.918	2.339	0.390	914	3732	1701	334	1.419	0.695
0.947	1.678	0.243	1105	2566	2867	143	1.358	0.549
0.944	1.222	0.258	1174	1251	4182	74	1.171	0.363
	1.000		1248	0	5433	0	1.000	0.187

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