

XLSTAT 2015.2.01.17315 - ROC Curves - on 5/3/2015 at 20:47:52

Event data: Workbook = ALL_NN / Sheet = ALL_NN / Range = ALL_NN!\$C:\$C / 2168 rows and 1 column

Test data: Workbook = ALL_NN / Sheet = ALL_NN / Range = ALL_NN!\$E:\$E / 2168 rows and 1 column

Size (%): 95 / Clopper-Pearson

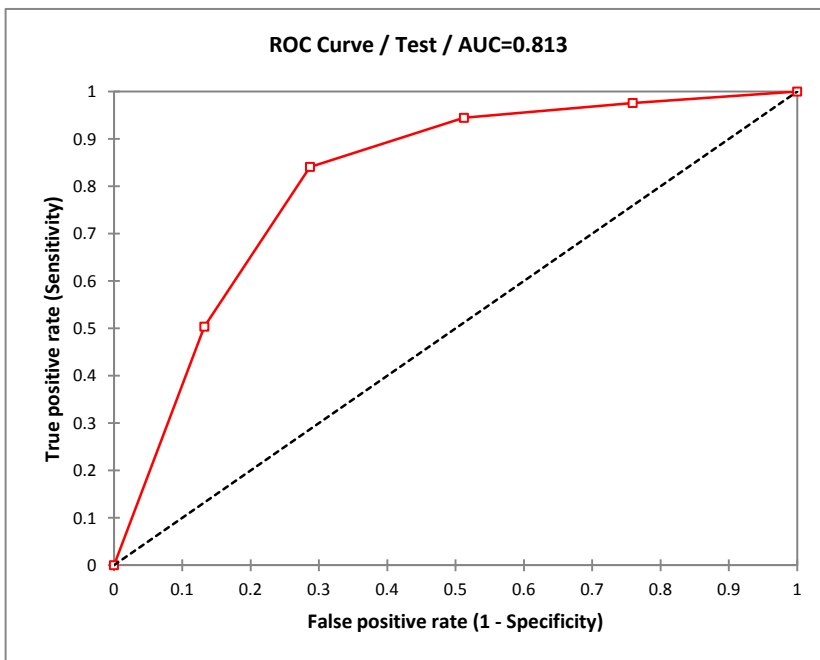
Area under the curve (Variance): Hanley & McNeil

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

Summary statistics (Test):

Variable	Observation	with missing	without missing	Minimum	Maximum	Mean	std. deviation
Test	2168	0	2168	1.000	5.000	3.008	1.417

Event	Frequency	%
1	415	19%
2	298	14%
3	554	26%
4	272	13%
5	629	29%
Prevalence	0.191	19%

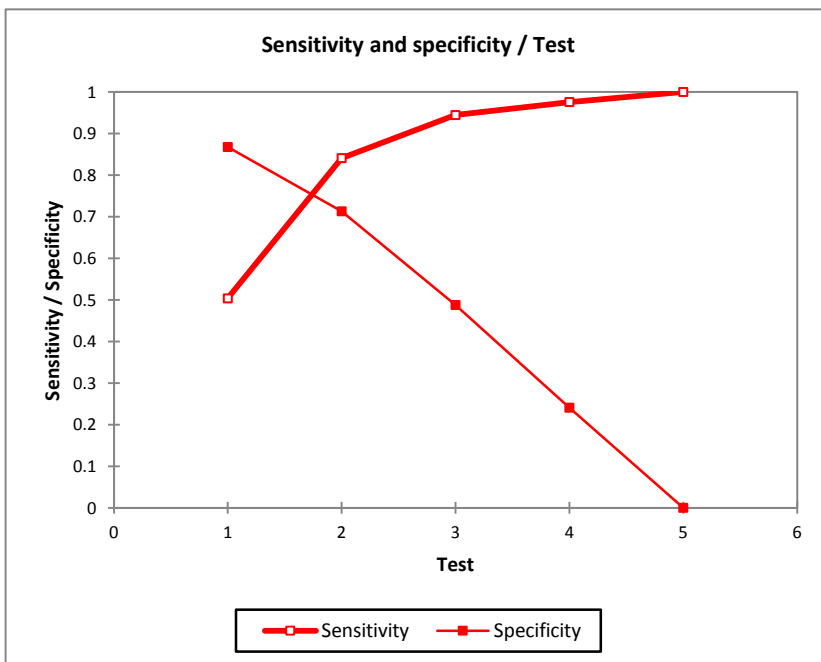
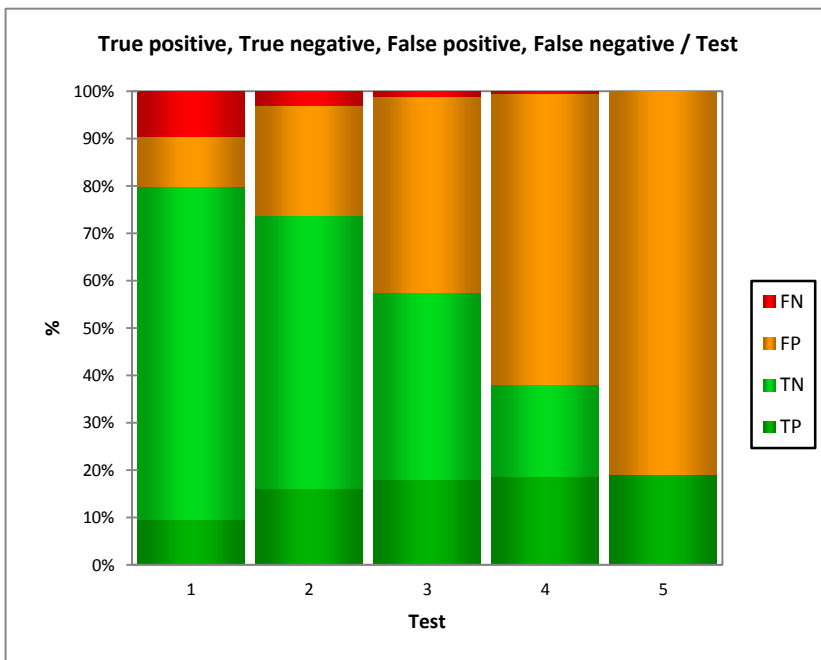


ROC analysis:

Test	Sensitivity	er bound (95%)	Specificity	er bound (95%)	Cost	PPV
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1.000	0.504	0.455	0.553	0.868	0.851	0.883	2168	0.474
2.000	0.841	0.801	0.874	0.713	0.691	0.734	2168	0.410
3.000	0.945	0.917	0.964	0.488	0.464	0.511	2168	0.304
4.000	0.976	0.955	0.988	0.241	0.221	0.262	2168	0.233
5.000	1.000	0.989	1.000	0.000	0.000	0.003	2168	0.191

Test is positive if Test <= threshold value



Area under the curve (AUC):

AUC	standard error	lower bound (95%)	upper bound (95%)
0.813	0.013	0.787	0.840

Comparison of the AUC to 0.5:

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

] 0.287, 0.340 [

Difference	0.313
z (Observed)	23.511
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
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0.881	3.805	0.572	209	1521	232	206	1.371	0.798
0.950	2.931	0.223	349	1250	503	66	1.554	0.738
0.974	1.844	0.114	392	855	898	23	1.432	0.575
0.977	1.285	0.100	405	422	1331	10	1.217	0.381
	1.000		415	0	1753	0	1.000	0.191

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