

XLSTAT 2015.2.01.17315 - ROC Curves - on 5/3/2015 at 18:01:43

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

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

Size (%): 95 / Clopper-Pearson

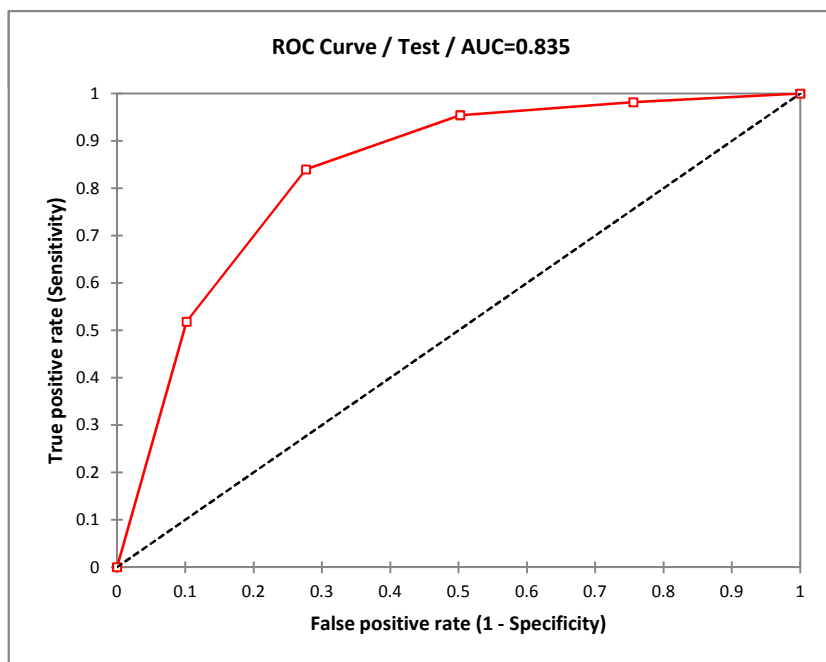
Area under the curve (Variance): Hanley & McNeil

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	3.026	1.397

Event	Frequency	%
1	1362	20%
2	1231	18%
3	1310	20%
4	1041	16%
5	1737	26%
Prevalence	0.204	20%

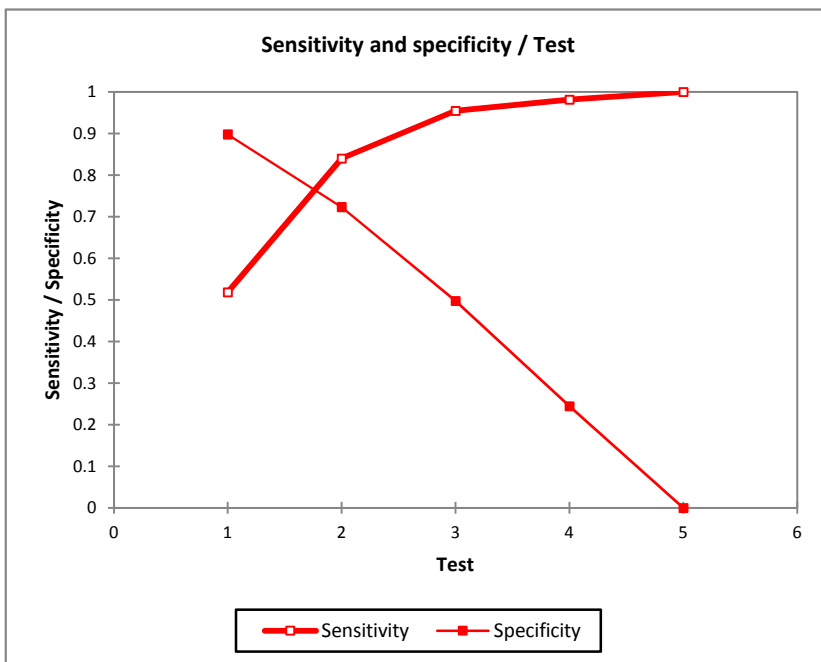
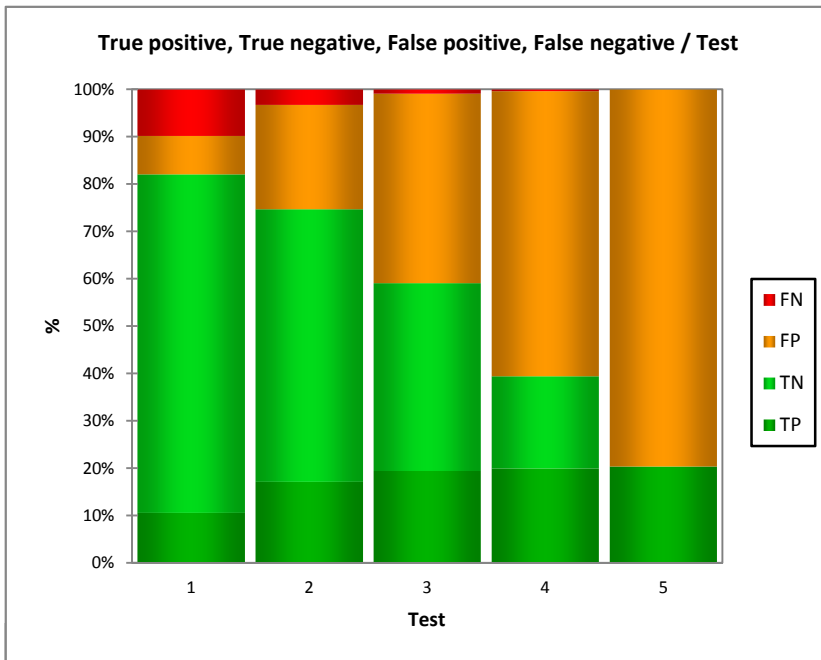


ROC analysis:

Test	Sensitivity	er bound (95%)	er bound (95%)	Specificity	er bound (95%)	er bound (95%)	Cost	PPV
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1.000	0.518	0.491	0.545	0.898	0.890	0.906	6681	0.566
2.000	0.840	0.819	0.859	0.723	0.711	0.735	6681	0.437
3.000	0.954	0.942	0.965	0.498	0.484	0.511	6681	0.327
4.000	0.982	0.973	0.988	0.244	0.233	0.256	6681	0.250
5.000	1.000	0.996	1.000	0.000	0.000	0.001	6681	0.204

Test is positive if Test <= threshold value



Area under the curve (AUC):

AUC	standard error	lower bound (95%)	upper bound (95%)
0.835	0.007	0.821	0.849

Comparison of the AUC to 0.5:

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

] 0.321, 0.349 [

Difference	0.335
z (Observed)	47.499
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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0.879	5.087	0.536	706	4777	542	656	1.416	0.821
0.946	3.037	0.221	1144	3848	1471	218	1.563	0.747
0.977	1.900	0.091	1300	2647	2672	62	1.452	0.591
0.981	1.299	0.075	1337	1300	4019	25	1.226	0.395
	1.000		1362	0	5319	0	1.000	0.204

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