

XLSTAT 2015.2.01.17315 - ROC Curves - on 5/3/2015 at 18:03:06

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

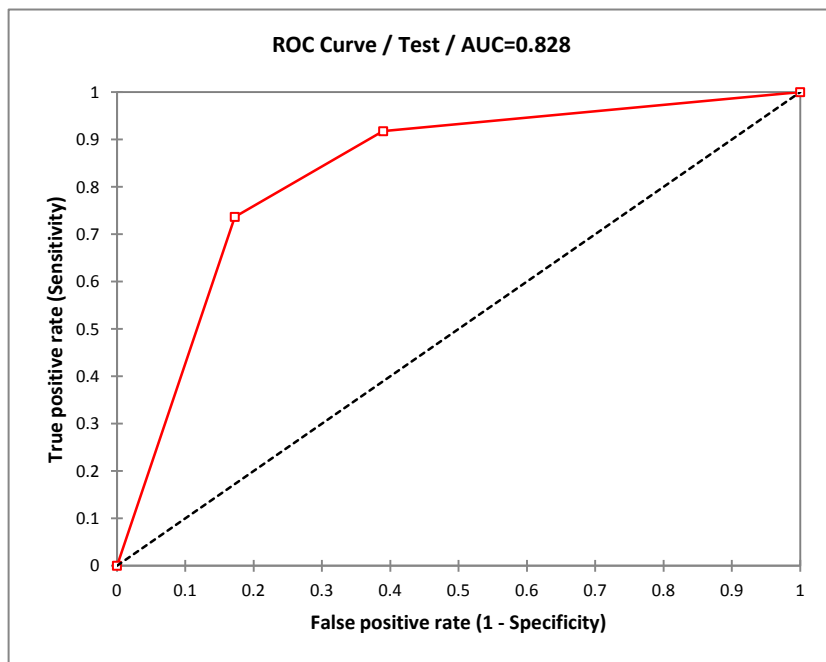
Area under the curve (Variance): Hanley & McNeil

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	3.028	1.785

Event	Frequency	%
1	2593	39%
3	1310	20%
5	2778	42%
Prevalence	0.388	39%

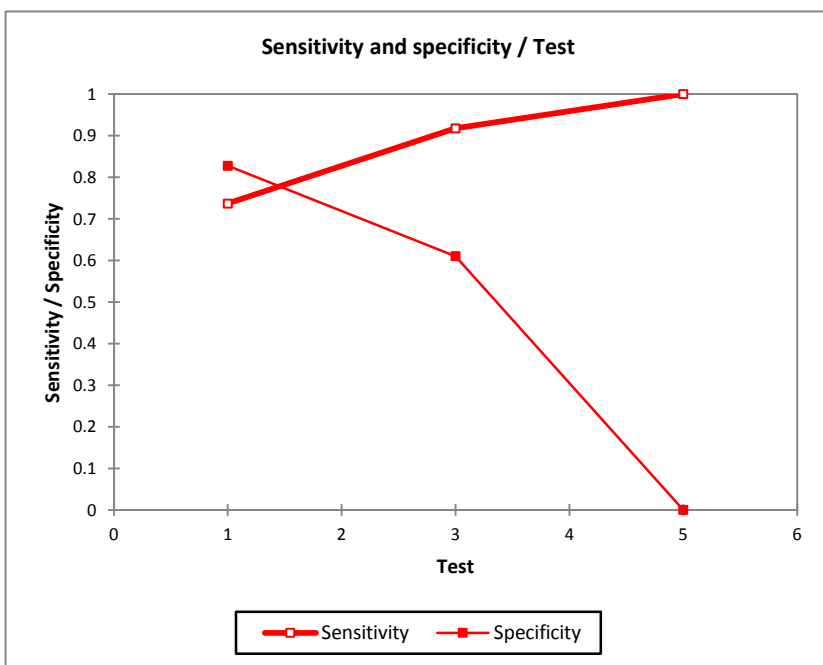
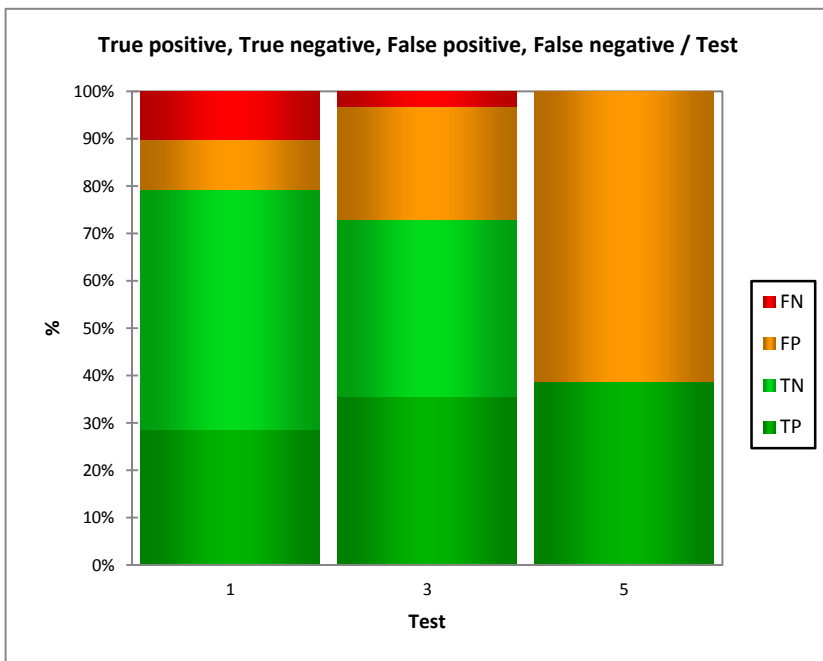


ROC analysis:

Test	Sensitivity er bound (9er bound (9			Specificity er bound (9er bound (9			Cost	PPV
1.000	0.737	0.719	0.753	0.828	0.816	0.839	6681	0.730
3.000	0.917	0.906	0.928	0.610	0.595	0.625	6681	0.599

5.000	1.000	0.998	1.000	0.000	0.000	0.001	6681	0.388
-------	-------	-------	-------	-------	-------	-------	------	-------

Test is positive if Test <= threshold value



Area under the curve (AUC):

AUC	standard error bound (Ser bound (95%))		
0.828	0.005	0.818	0.839

Comparison of the AUC to 0.5:

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

] 0.318, 0.339 [

Difference	0.328
z (Observed)	59.988
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
0.832	4.271	0.318	1910	3383	705	683	1.564	0.792
0.921	2.354	0.135	2379	2495	1593	214	1.528	0.730

	1.000	2593	0	4088	0	1.000	0.388
--	-------	------	---	------	---	-------	-------

|

