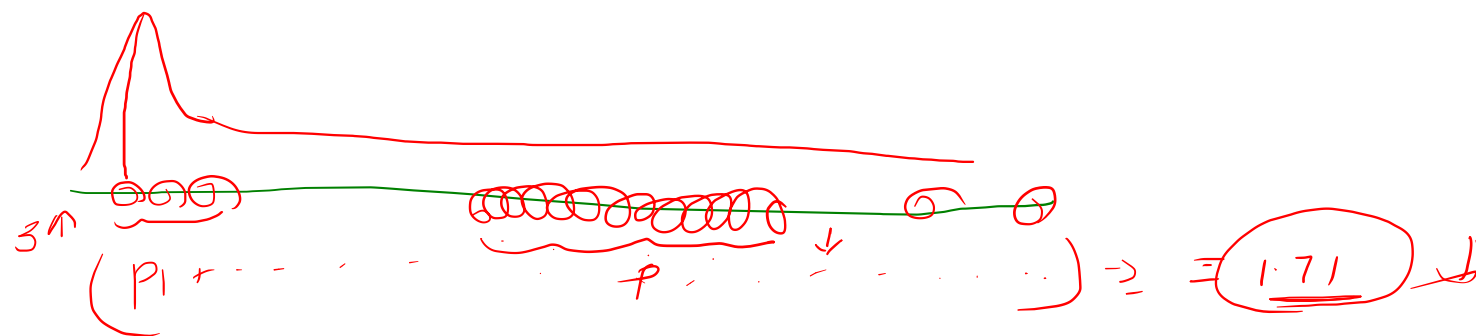
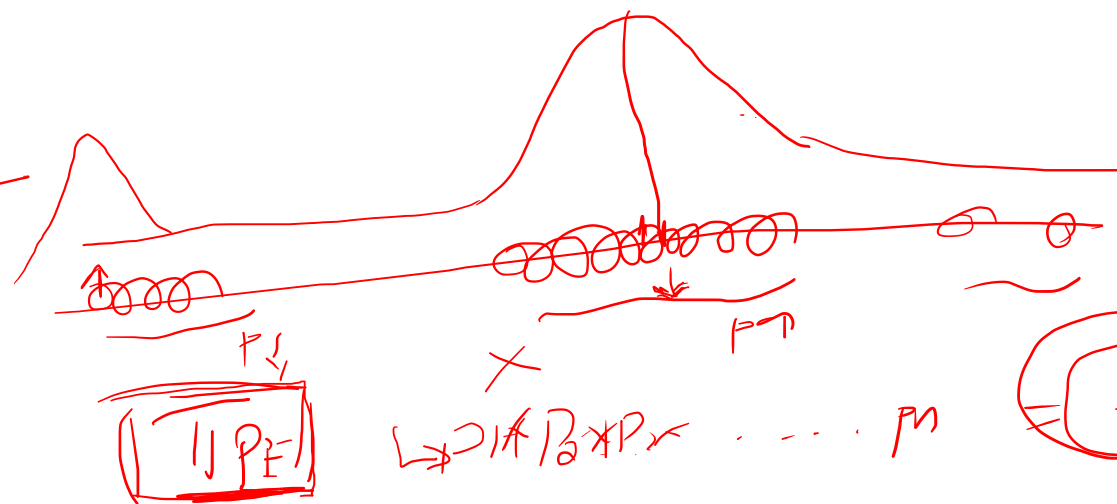


$\int dx$   
 $p(x)$



MLE  
with mean, SD



$p_{model}$

3.47 ✓

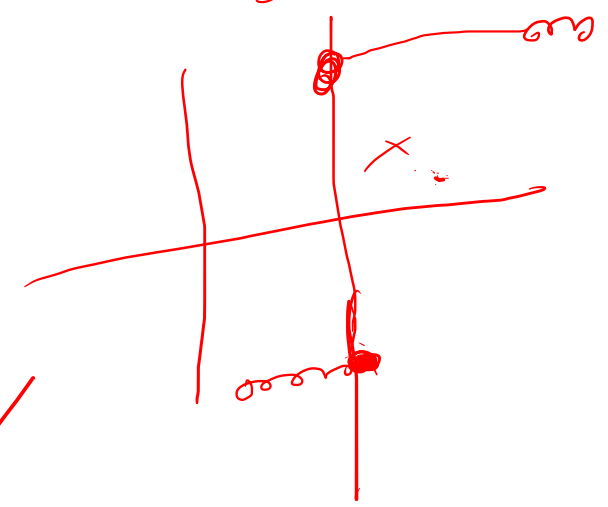
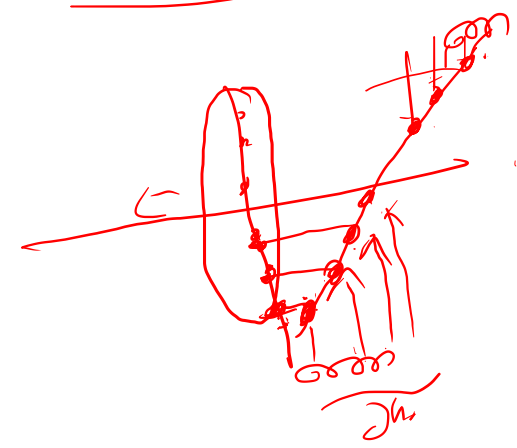
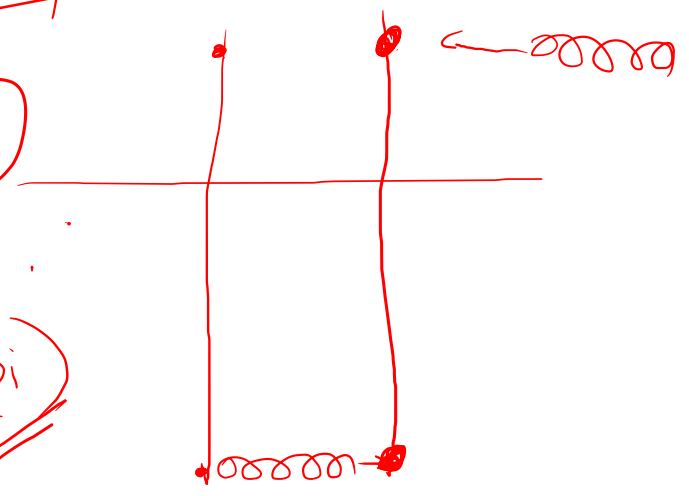
Glikelihood =  $\prod p_i$

$\frac{Mean}{SP} = ?$   
 $\frac{SP}{SP} = ?$   
MLE

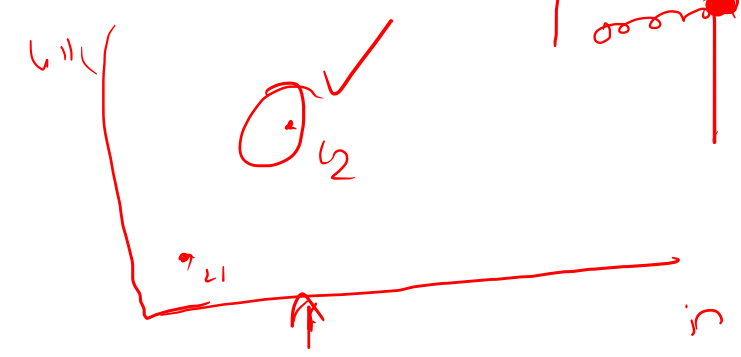
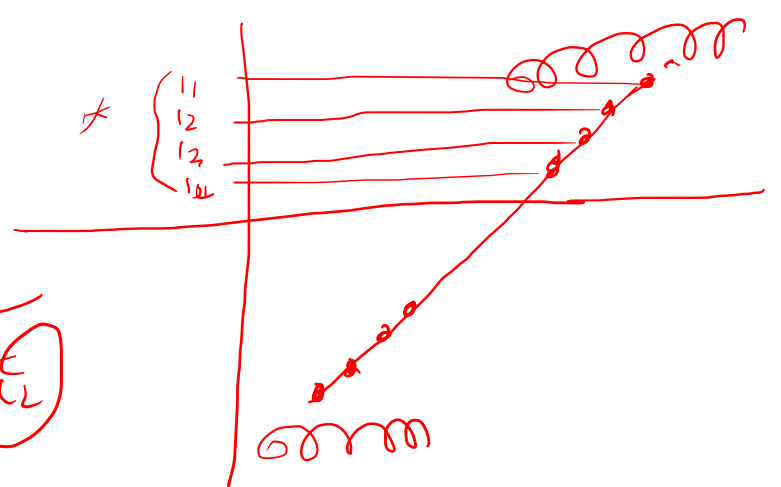
$$\log \left( \frac{p}{1-p} \right)$$

$$= g \left( \frac{\theta_0 + \theta_1 x_1}{1} \right)$$

$\theta_0 + \theta_1 x_1$   
 $\theta_0 + \theta_1 x_1$   
 $\theta_0 + \theta_1 x_1$



$\log \left( \frac{y}{1-y} \right)$   
Logit  
 $\theta_0 + \theta_1 x_1$

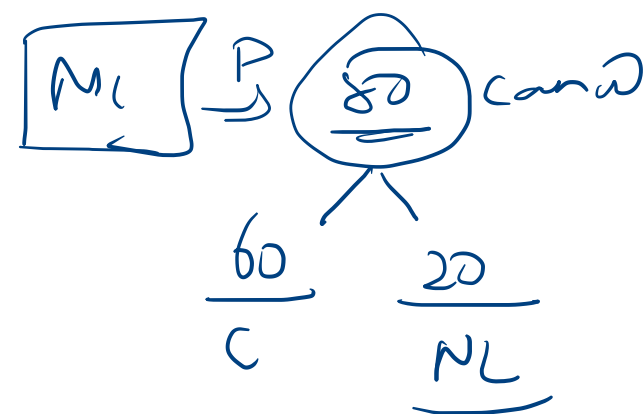
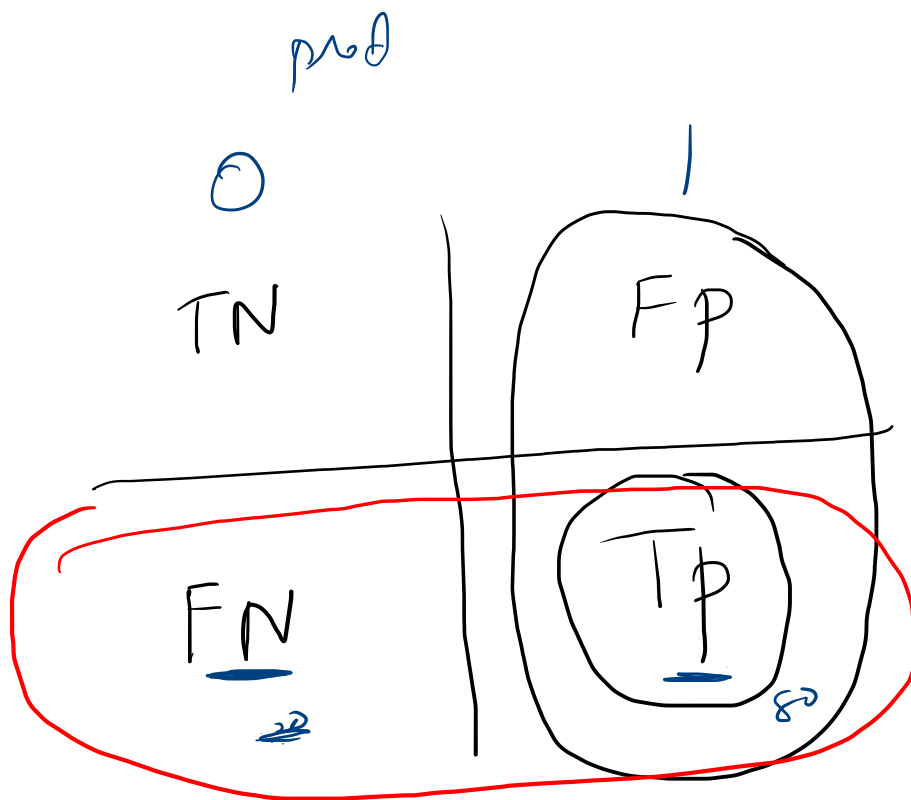


# Confusion matrix

actual

→ 0

→ 1



$$\text{Accuracy} = \frac{TN + TP}{TN + TP + FN + FP}$$

precision

recall

→

$$\frac{TP}{TP + FN}$$

→

TPR

$$\text{precision} = \frac{TP}{TP + FP}$$

$$FPR \Rightarrow \frac{FP}{FP + TN}$$

→ False positive ratio

Roc & Auc

threshold  $\rightarrow 0.5$  X  
 wrongs  $\downarrow$  p. km  $\downarrow$  a

70  $\rightarrow$  P  
 30  $\rightarrow$  NP

area  $\sim$   
 $\hookrightarrow$  mean

classification  
 $\hookrightarrow$  Random  
 $\hookrightarrow$  (0.5)

y-prod  $\rightarrow$  (0.5)

0.1  $\leq$  P  
 $< 0.1$  NP

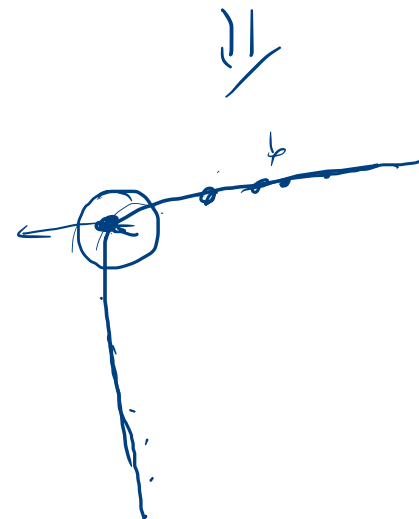
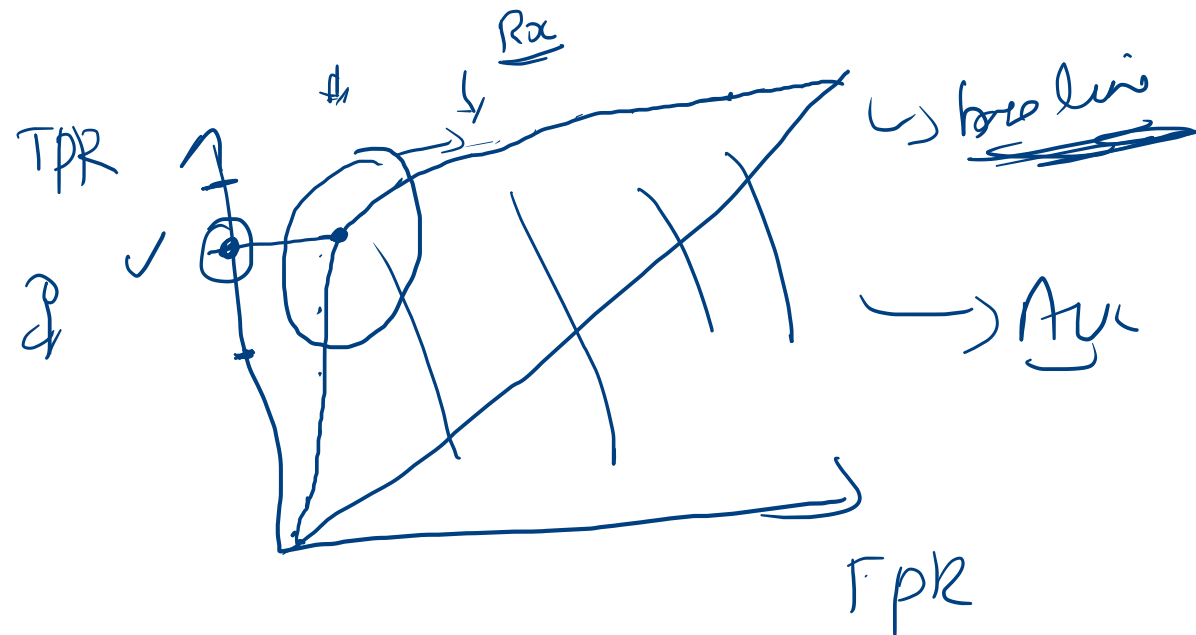
0.5  $\rightarrow$  (0.5)

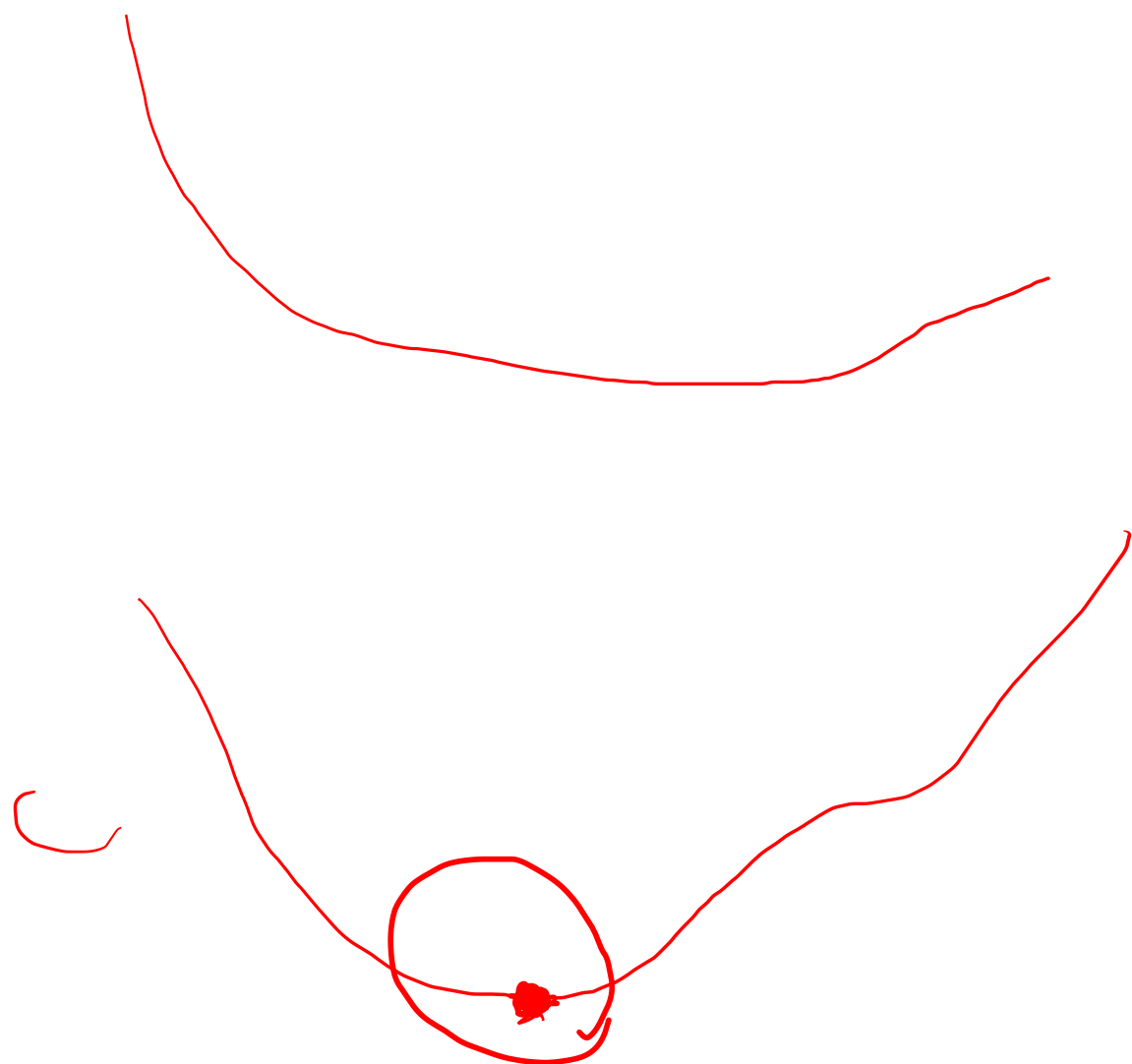
Threshold 0.1  $\rightarrow$  confusion  $\rightarrow$  TPR, FPR

0.2  $\rightarrow$  confus  $\rightarrow$  TPR, FPR

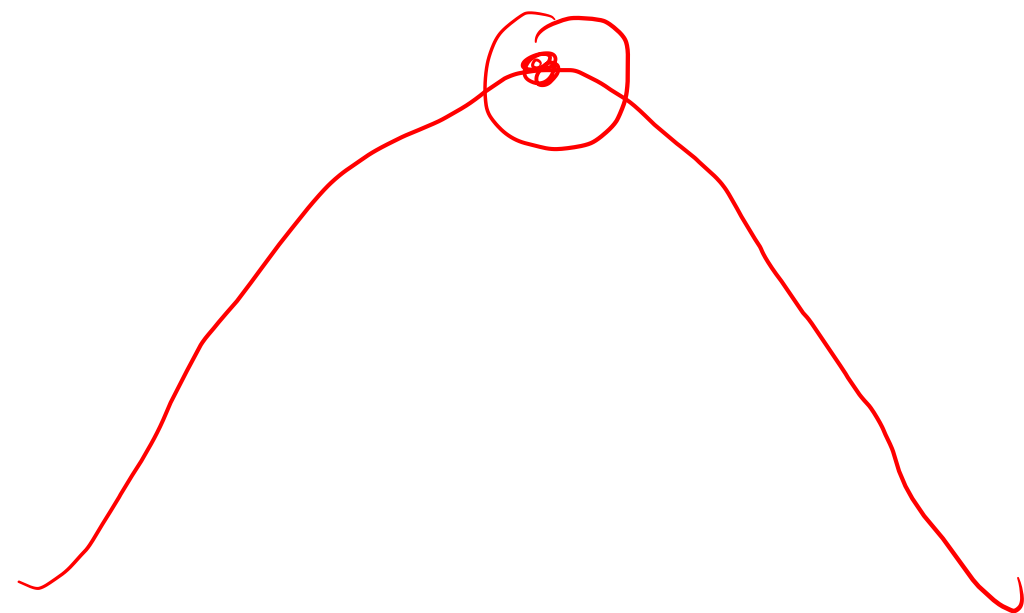
0.3  $\rightarrow$  confusion  $\rightarrow$  TPR, FPR

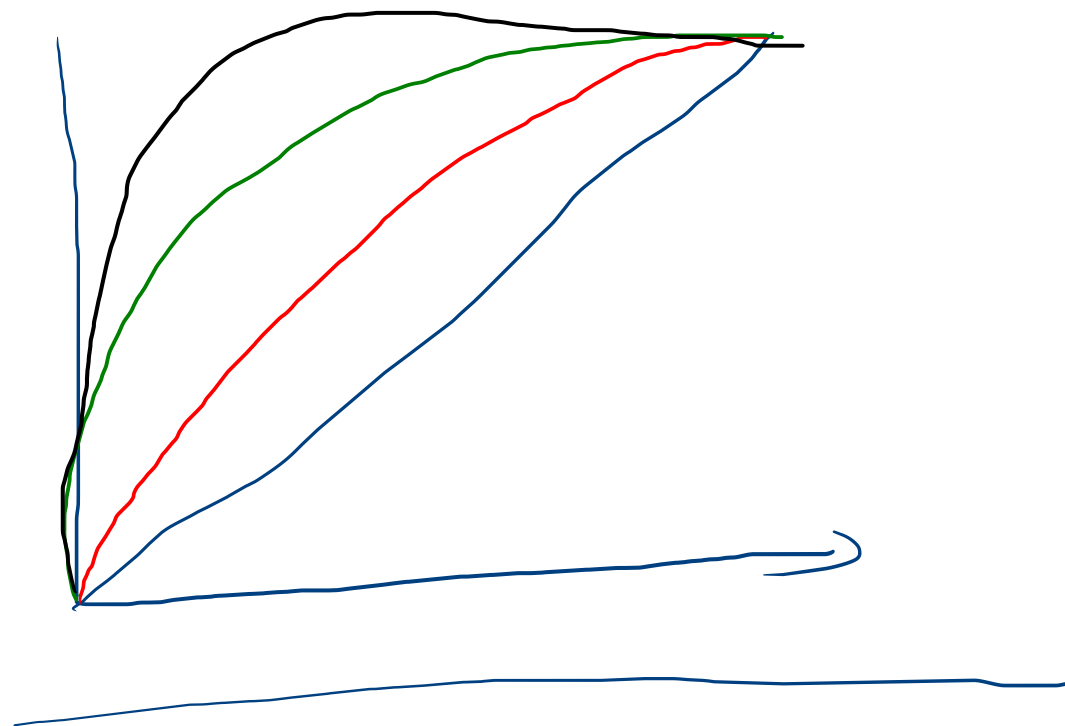
1  $\rightarrow$  confusion - TPR, FPR





==>





Black  $\rightarrow$  Auc  
 green  
 red

$> 0.5$

