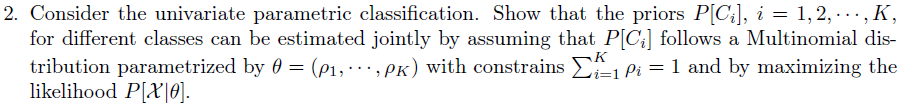
A1:

=Q (令Q為常數)

boundary 為 一 雙曲線.



A2:

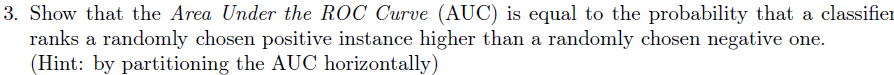
　 P(X) =

Use Lagrange Multiplier -> L =

1 --- ,

=

2 --- =



A3: y(T) is y-value at T at ROC curve , x’(T) is x-value(a point) at T at ROC curve(切無限的直刀,or pdf)

負類別判斷成正類別的機率,在T)

AUC=

= = , (數值\*機率=期望值)

=若隨機抽取一個正樣本和一個負樣本，分類器依據計算所得到的分數,將這個正樣本排在負樣本前面

機率

