

MS – E2112 – Multivariate statistical analysis– Home exercise 9

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March 18th, 2016

Problem 1

DATA

The data set consists of information of 77 alcohol with different chemical properties such as MEOH, ACET, BU1, MEPR, ACAL, LNPRO1 as covariates.

TASK

The task was to perform Linear Discriminant analysis for the above dataset and predict the group for the new data given.

RESULT

After the analysis, it was found that the new data was from **KIRSCH** group. The code for the same is given in the appendix.

Appendix

The code for the problem solved above.

```
#####
setwd("//home.org.aalto.fi/gadichs1/data/Desktop/P3_4/MSA/EX 9")

alcohol <- read.table("ALCOHOL.txt",header = T,sep = '\t')

#install.packages('MASS')

alcohol[,1] <- factor(alcohol[,1])

data = alcohol

data.lda <- lda(TYPE~.,data=data)

# new data

newdata<- data.frame(MEOH=500,ACET = 400,BU1=3,MEPR=30,ACAL=20,LNPRO1=10)

predict(data.lda,newdata=newdata)$class

#####
```