

1 Aula 4 - 23/03/2018

```
> library('plot3D')
> rm(list = ls())
> xc1<-matrix(rnorm(100,sd=0.4),ncol=2)+2
> xc2<-matrix(rnorm(100,sd=0.4),ncol=2)+4
> plot(xc1[,1],xc1[,2],col='red',xlim=c(0,6),ylim=c(0,6),xlab='',ylab='')
> par(new=T)
> plot(xc2[,1],xc2[,2],col='blue',xlim=c(0,6),ylim=c(0,6),xlab='',ylab='')
> w1<-1
> w2<-1
> theta<-6
> fx1<-seq(0,6,0.1);
> fx2<--w1/w2*fx1+theta/w2
> par(new=T)
> plot(fx1,fx2,col='black',type='l')
> seqi<-seq(0,6,0.1)
> seqj<-seq(0,6,0.1)
> M<-matrix(1,nrow=length(seqi),ncol=length(seqj))
> ci<-0
> cj<-0
> for(i in seqi) {
+   ci<-ci+1
+   cj<-0
+   for(j in seqj) {
+     cj<-cj+1
+     M[ci,cj]<-1*(i*w1+j*w2>=theta)
+   }
+ }
> persp3D(seqi,seqj,M)
```

