

# Solution des exercices de familiarisation avec la lecture des données sous MATLAB

## Exercice 1

```
aa=load('dipole_ref.txt');  
figure  
subplot(211)  
plot(aa(:,1),aa(:,2))  
subplot(212)  
plot(aa(:,1),aa(:,3))
```

## Exercice 2

```
aa=load('dipole_ref.txt');  
bb=load('dipole_pert.txt');  
t=bb(:,1);  
d=bb(:,3)-interp1(aa(:,1),aa(:,3),t);  
figure  
semilogy(t,abs(d))
```

## Exercice 3

```
[nom, numero, amplitude]=textread('spectre.txt','%s %u %f','headerlines',1);  
Y=log(amplitude);  
X=[numero 0*numero+1];  
A=X\Y  
figure  
subplot(211)  
plot(numero, amplitude)  
subplot(212)  
semilogy(numero, amplitude,'o')  
hold on  
semilogy(numero,exp(X*A))
```

## Exercice 4

```
aa=load('anomalie.txt');  
nx=length(unique(aa(:,1)));  
ny=length(unique(aa(:,2)));  
X=reshape(aa(:,1),ny,nx);  
Y=reshape(aa(:,2),ny,nx);  
data=reshape(aa(:,3),ny,nx);  
figure  
pcolor(X,Y,data)  
shading interp
```