

*Script_TP02_Application_03

```
% APPLICATION 3:
```

```
% 1) Tracé de 30 lignes de niveau et affichage de quelques valeurs:
```

```
figure
```

```
[X,Y]=meshgrid(-1:0.1:1,-1:0.1:1);
```

```
Z=(X-1).^2+10*(X.^2-Y).^2;
```

```
[C,h]=contour(X,Y,Z,30);grid
```

```
xlabel('X'),ylabel('Y'),zlabel('Z')
```

```
title('Z=f(X,Y)')
```

```
clabel(C,h,'manual')
```

```
% 2) Tracé de la surface:
```

```
figure
```

```
mesh(X,Y,Z)
```

```
xlabel('X'),ylabel('Y'),zlabel('Z')
```

```
title('Z=f(X,Y)')
```

```
% 3) Tracé de la surface et des lignes de niveau:
```

```
figure
```

```
meshc(X,Y,Z)
```

```
xlabel('X'),ylabel('Y'),zlabel('Z')
```

```
title('Z=f(X,Y)')
```

*Commande window

>> TP2_Application_03

Figure 01 :

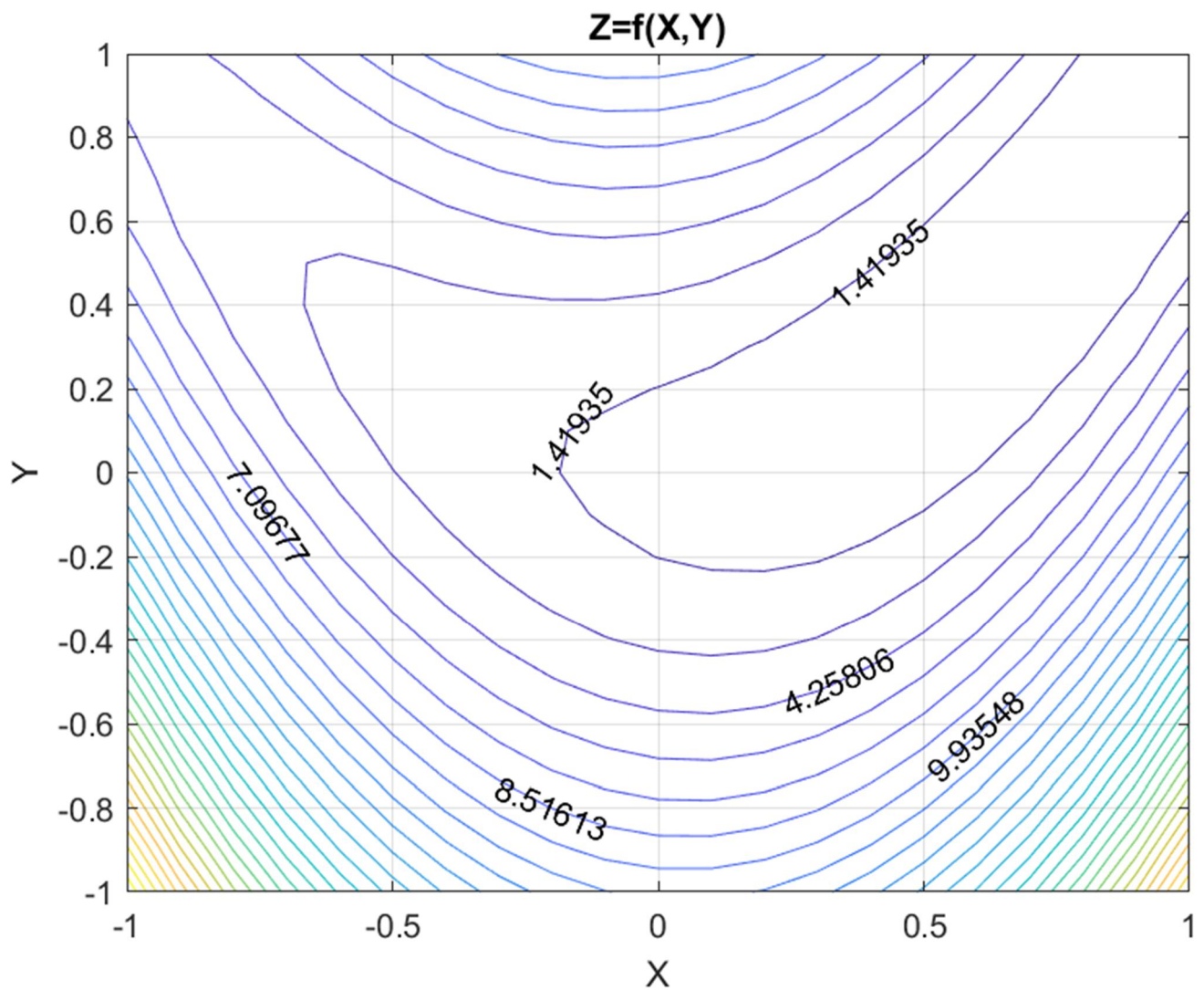


Figure 02 :

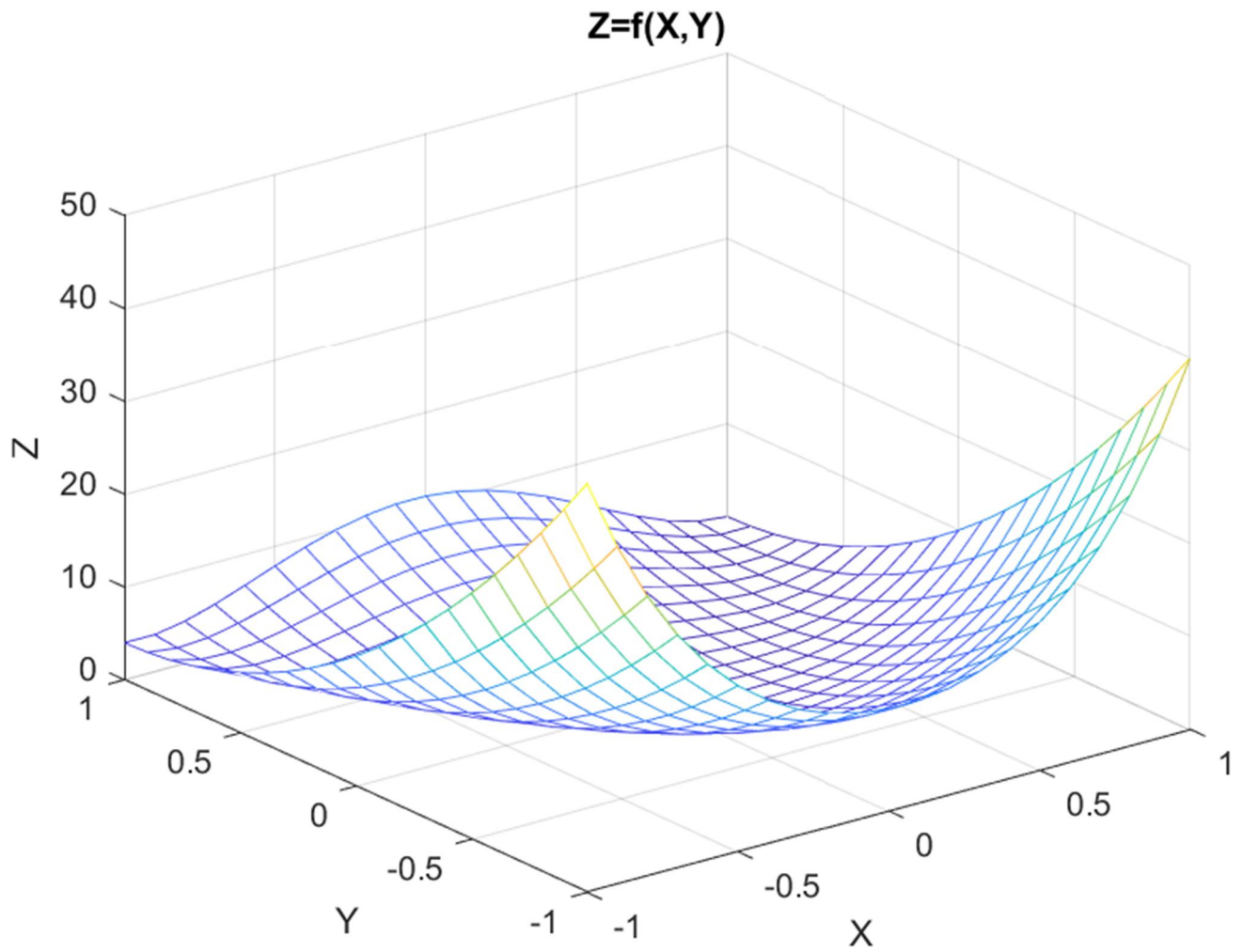
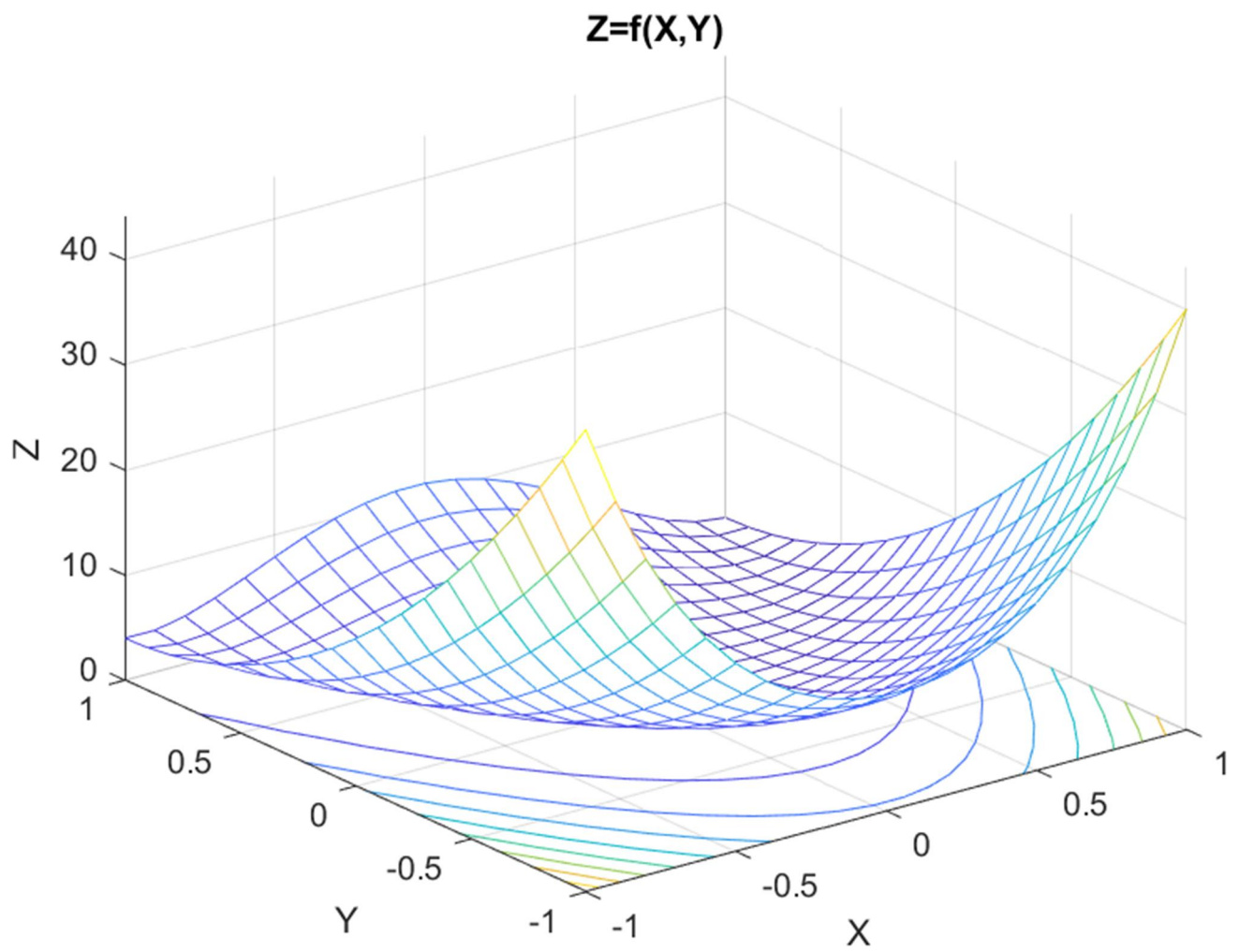


Figure 03 :





Workspace

Name ▲	Value
C	2x831 double
h	1x1 Contour
X	21x21 double
Y	21x21 double
Z	21x21 double

Col 18