

Language

MATLAB/Octave

```
n=-2:.1:2;  
[x,y] = meshgrid(n,n);  
z=x.*exp(-x.^2-y.^2);
```

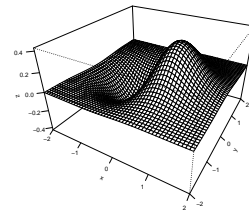
Python

```
n=arrayrange(-2,2,.1)  
[x,y] = meshgrid(n,n)  
z = x*power(math.e,-x**2-y**2)
```

R

```
f <- function(x,y) x*exp(-x^2-y^2)  
n <- seq(-2,2, length=40)  
z <- outer(n,n,f)
```

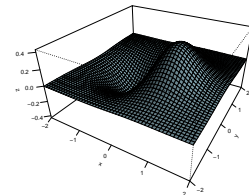
$$f(x,y) = xe^{-x^2-y^2}$$



Mesh plot

`mesh(z)`

```
persp(x,y,z,  
  theta=30, phi=30, expand=0.6,  
  ticktype='detailed')
```



Surface plot

`surf(x,y,z)` or `surfl(x,y,z)`
Octave: % no `surfl()`

```
persp(x,y,z,  
  theta=30, phi=30, expand=0.6,  
  col='lightblue', shade=0.75, ltheta=120,  
  ticktype='detailed')
```