

Kapitola 2.5 Kuželová plocha

```
[ > restart;  
[ > plotsetup(inline,plotoptions=`portrait,noborder,shrinkby=0`);
```

Kuželová plocha eliptická

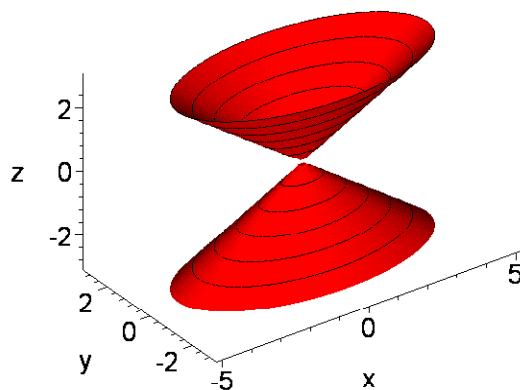
```
[ > KuP:=x^2/4+y^2-z^2/2=0;
```

$$KuP := \frac{x^2}{4} + y^2 - \frac{z^2}{2} = 0$$

```
[ > kv:=KuP:
```

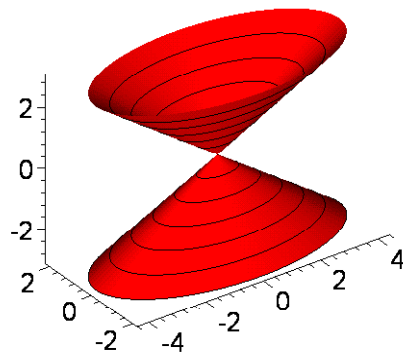
Užití příkazu "implicitplot"

```
[ > kvg:=plots[implicitplot3d](lhs(kv),x=-5..5,y=-3..3,z=-3..3,axes=  
frame,color=red,style=patchcontour,grid=[50,50,50],contours=10,light=[100,-5,1,1,1],tickmarks=[3,3,3],orientation=[52,63],scaling=  
constrained):  
[ > plots[display](kvg,axes=frame,scaling=constrained,orientation=[-  
126,60]);
```



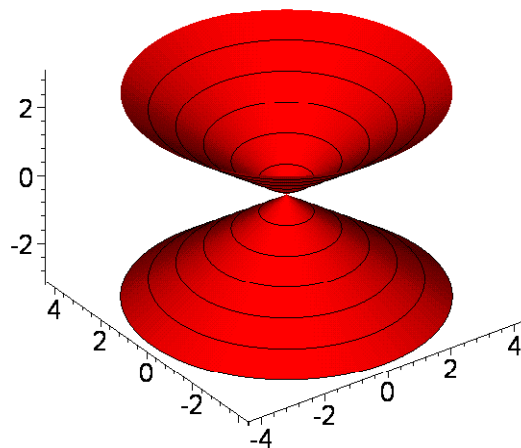
Parametrický graf

```
[ > plot3d([sqrt(2)*t*cos(u),(sqrt(2)/2)*t*sin(u),t],t=-3..3,u=-Pi..  
Pi,axes=frame,color=red,style=patchcontour,grid=[80,80],contours  
=10,light=[100,-5,1,1,1],tickmarks=[3,3,3],orientation=[-126,60]  
,scaling=constrained);
```



Rotační kuželová plocha

```
> plot3d([sqrt(2)*t*cos(u),sqrt(2)*t*sin(u),t],t=-3..3,u=-Pi..Pi,axes=frame,color=red,style=patchcontour,grid=[80,80],contours=10,light=[100,-5,1,1,1],tickmarks=[3,3,3],orientation=[-126,60],scaling=constrained);
```



```
>
```