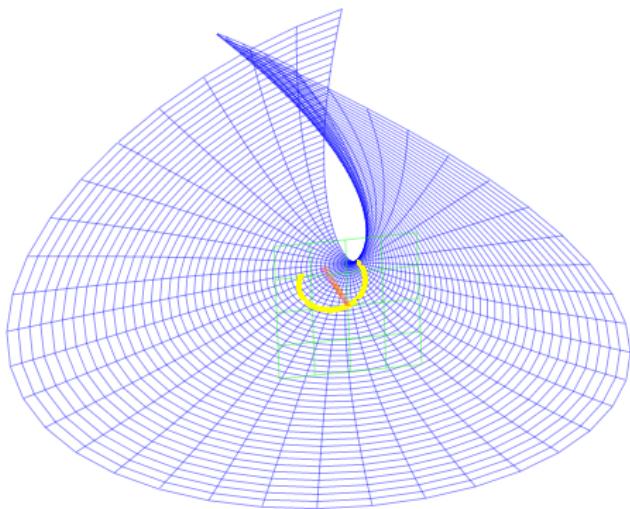


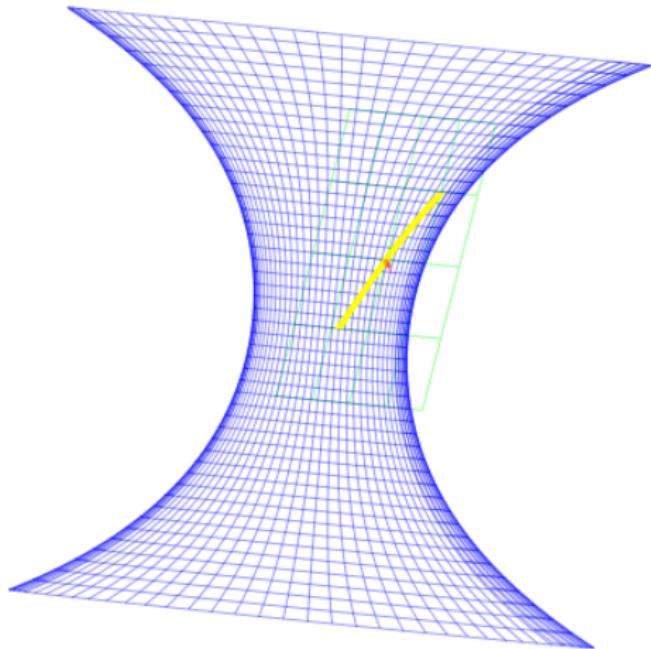
# Bour's minimal surface

[ $v \cos(u) - v^2/2 \cos(2u)$ ,  $-v \sin(u) - v^2/2 \sin(2u)$ ,  
 $4/3 v^{3/2} \cos(3/2u)$ ]



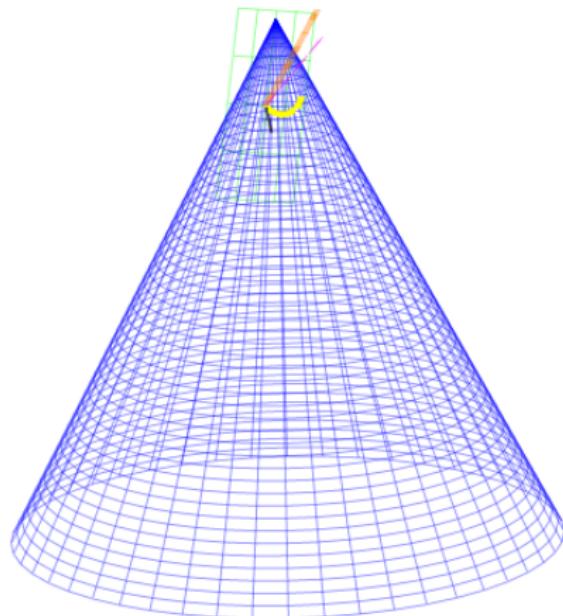
# catenoid

$g := (u, v) \rightarrow [\cosh(u) \cos(v), \cosh(u) \sin(v), u];$



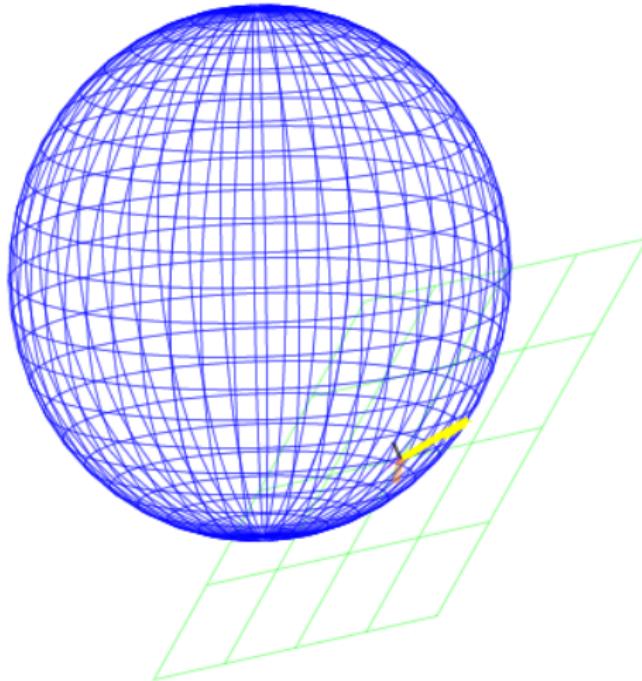
# cone

$g := (u, v) \rightarrow [v \cos(u), v \sin(u), v];$



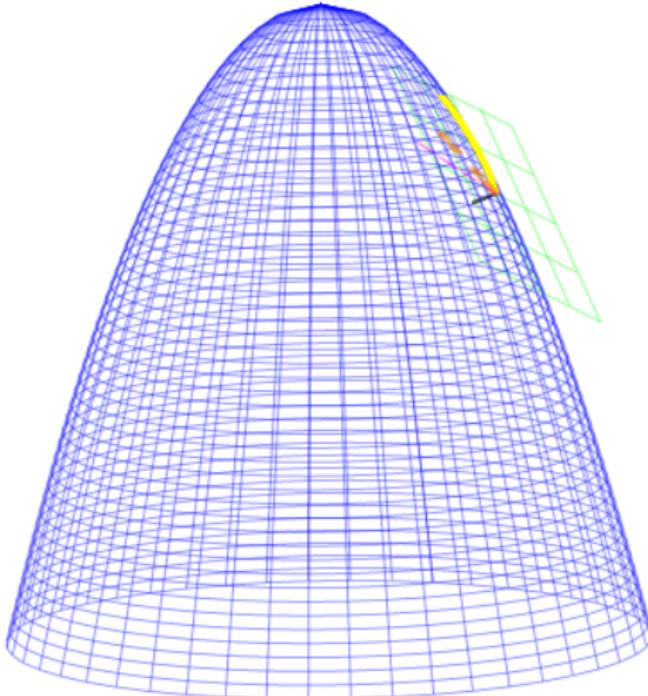
# ellipsoid

[ $4 \cdot \cos(u) \cdot \sin(v)$  ,  $4 \cdot \sin(u) \cdot \sin(v)$  ,  $3 \cdot \cos(v)$  ]



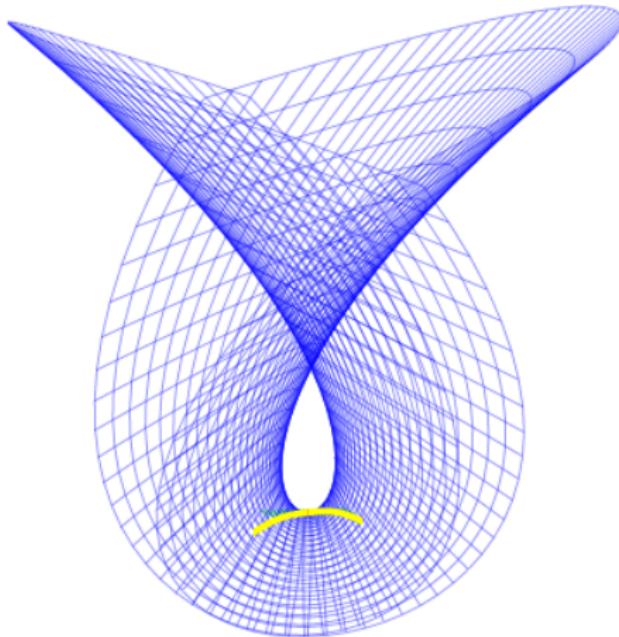
# elliptic paraboloid

$g := (u, v) \rightarrow [\sqrt{u} \cos(v), \sqrt{u} \sin(v), u];$



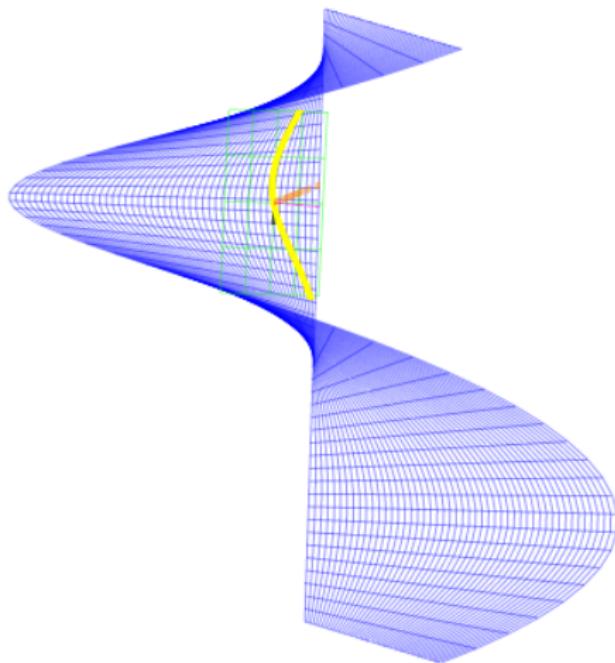
# Enneper's surface

$$[u - u^3/3 + u \cdot v^2, v - v^3/3 + v \cdot u^2, u^2 - v^2]$$



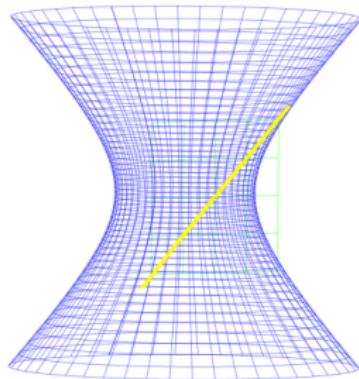
# helicoid

```
g := (u,v) -> [v*cos(u), v*sin(u), u];
```



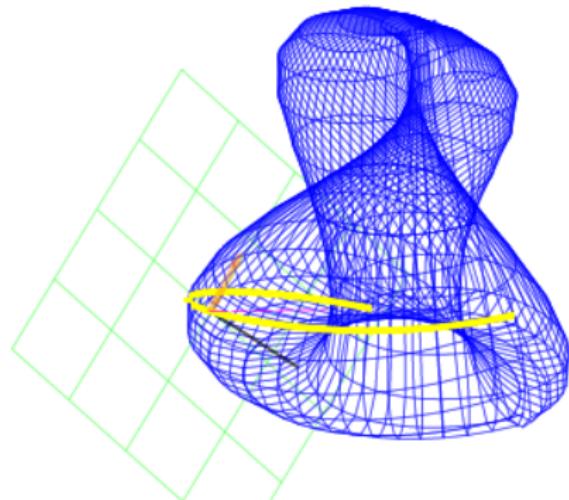
# hyperboloid

$[\cosh(u) \cos(v), \cosh(u) \sin(v), \sinh(u)]$



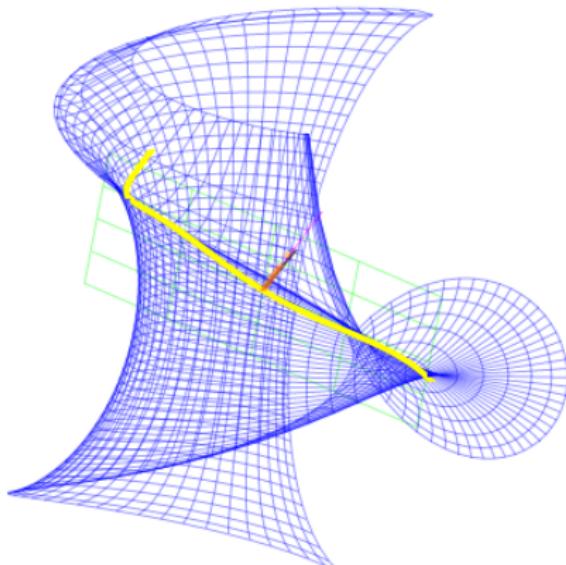
# Klein bottle

```
[cos(u) * (cos(u/2) * (sqrt(2)+cos(v))  
+sin(u/2)*sin(v)*cos(v)),  
sin(u) * (cos(u/2) * (sqrt(2)  
+cos(v))+sin(u/2)*sin(v)*cos(v)),  
-sin(u/2) * (sqrt(2)+cos(v))+cos(u/2)*sin(v)*cos(v)]
```



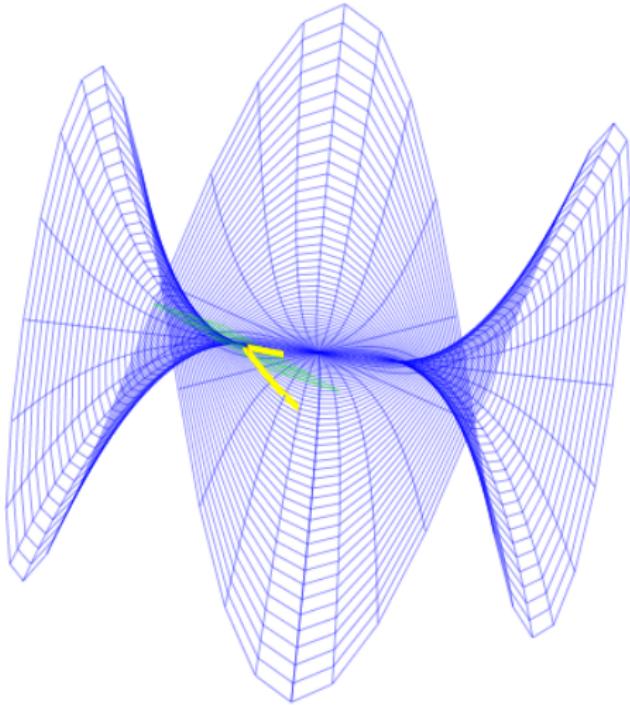
# Kuen's surface

```
[2*(cos(u)+u*sin(u))*sin(v)/(1+u^2*sin(v)^2),  
2*(sin(u)-u*cos(u))*sin(v)/(1+u^2*sin(v)^2),  
ln(tan(v/2))+2*cos(v)/(1+u^2*sin(v)^2)]
```



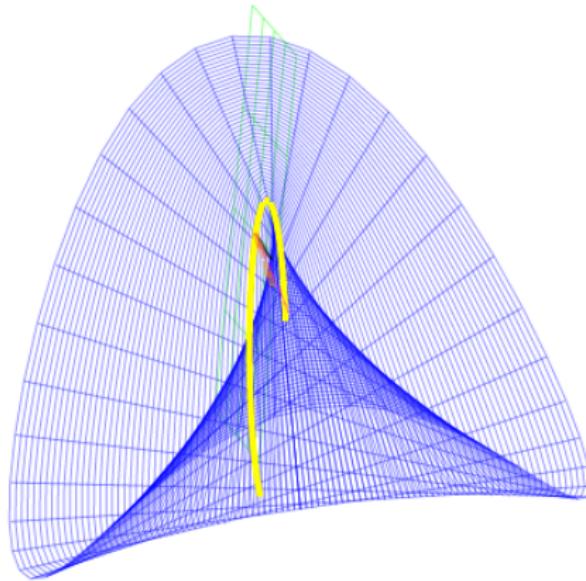
# monkey saddle

```
g := (u,v) -> [u*cos(v), u*sin(v), u^3*cos(3*v)];
```



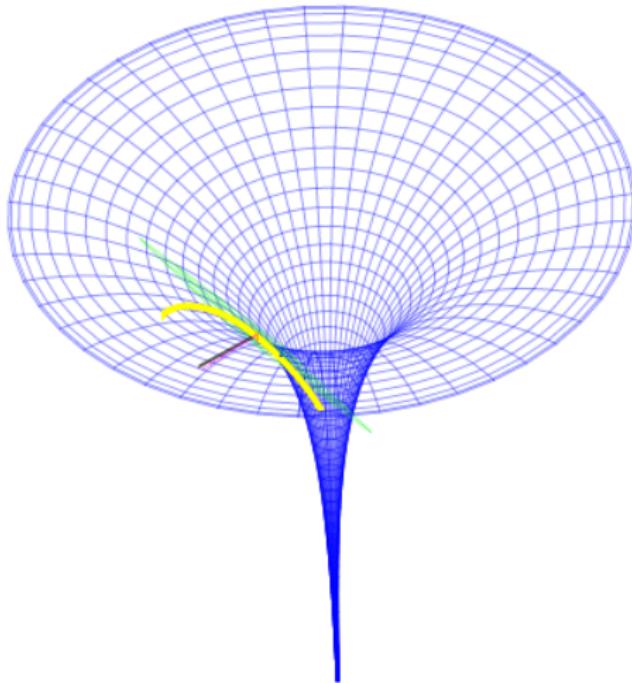
# Plücker's conoid

$g := (u, v) \rightarrow [v \cos(u), v \sin(u), 2 \cos(u) \sin(u)]$ ;



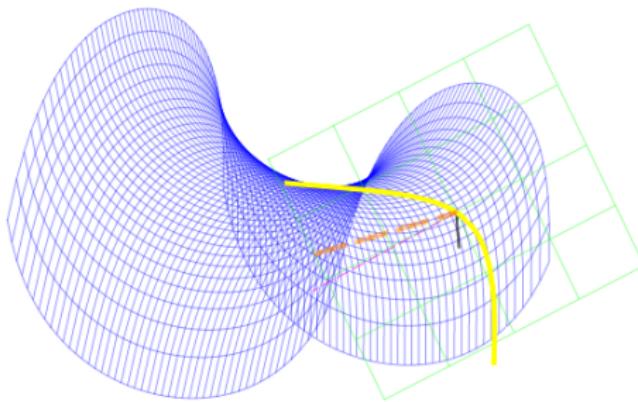
# pseudosphere

[ $\text{sech}(u) \cos(v)$ ,  $\text{sech}(u) \sin(v)$ ,  $u - \tanh(u)$ ]



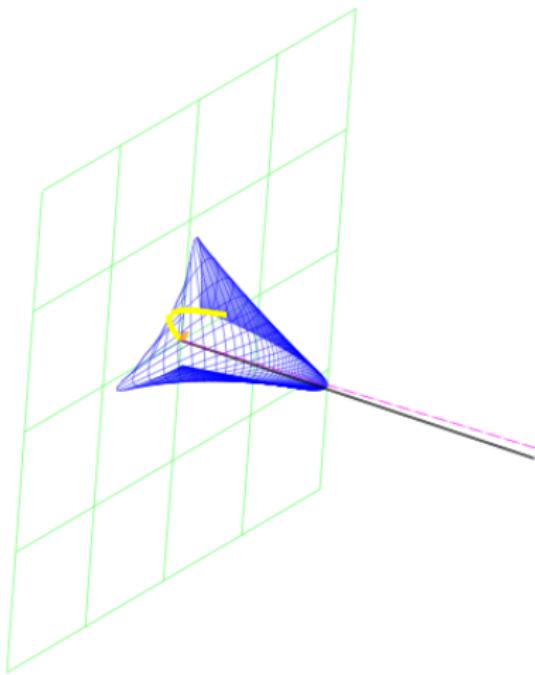
# Scherk's surface

$g := (u, v) \rightarrow [u, v, \ln(\cos(v)/\cos(u))] ;$



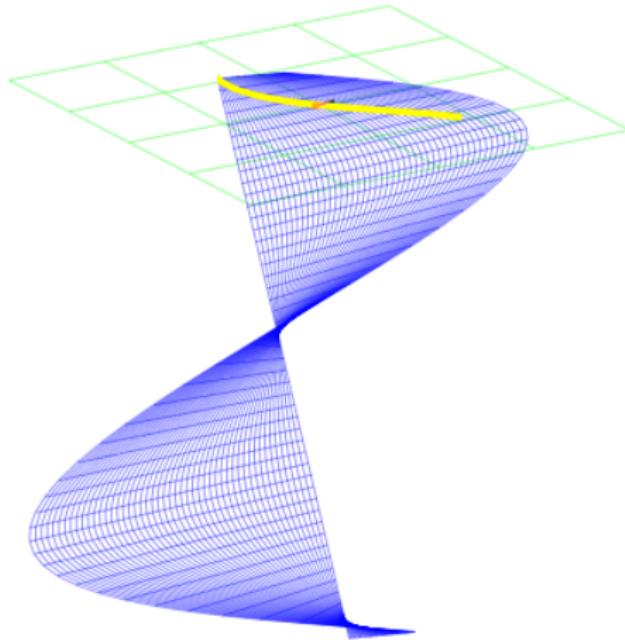
# Steiner surface

$$[u / (1+u^2+v^2), v / (1+u^2+v^2), u*v / (1+u^2+v^2)]$$



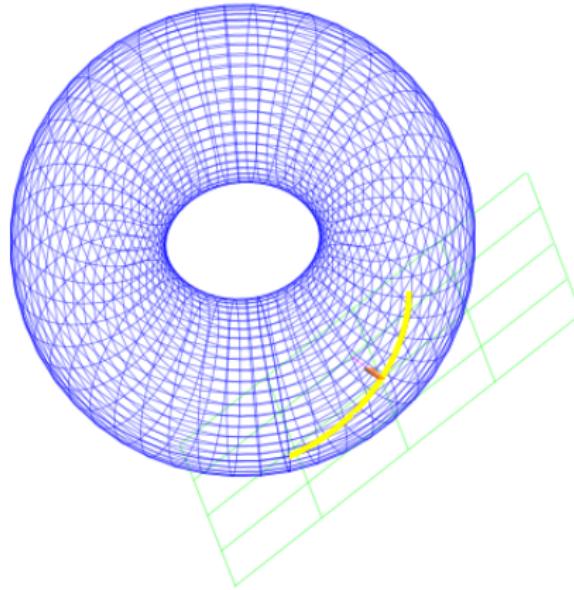
# strake

$g := (u, v) \rightarrow [v \cos(u), v \sin(u), 30/(2\pi)u];$



# torus

[ (2+cos(u)) \*cos(v) , (2+cos(u)) \*sin(v) , sin(u) ]



# Whitney's umbrella

$g := (u, v) \rightarrow [u*v, u, v^2];$

