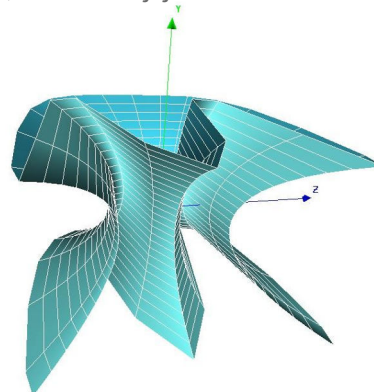
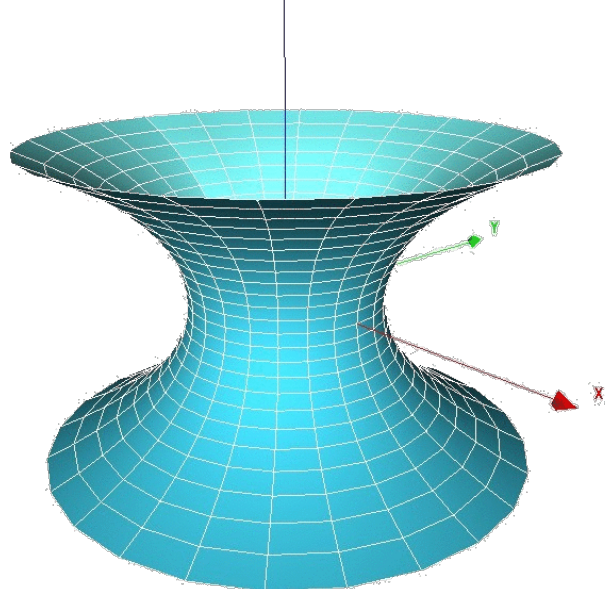


MATEMATIKA U ARHITEKTURI 2

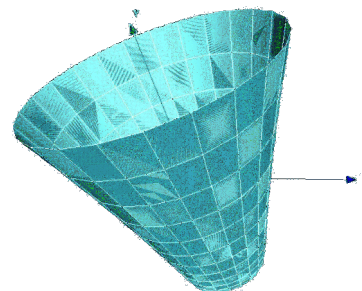
Arhitektonski fakultet Univerziteta u Beogradu; Prof. dr Ljiljana Petruševski; Nataša Matić, 2013/172



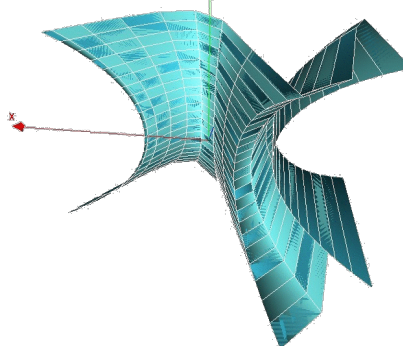
$$\begin{aligned} X f(u,v) &= 2 * \cosh(v/2) * \cos(u^2) \\ Y f(u,v) &= v \\ Z f(u,v) &= 2 * \cosh(v/2) * \sin(u) \\ -\pi &\leq u \leq \pi \\ -\pi &\leq v \leq \pi \end{aligned}$$



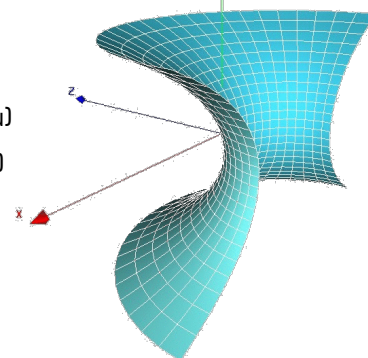
$$\begin{aligned} X f(u,v) &= 2 * \cosh(v/2) * \cos(u) \\ Y f(u,v) &= v^2 \\ Z f(u,v) &= 2 * \cosh(v/2) * \sin(u) \\ -\pi &\leq u \leq \pi \\ -\pi &\leq v \leq \pi \end{aligned}$$



$$\begin{aligned} X f(u,v) &= 2 * \cosh(v/2) * \cos(u) \\ Y f(u,v) &= v \\ Z f(u,v) &= 2 * \cosh(v/2) * \sin(u^2) \\ -\pi &\leq u \leq \pi \\ -\pi &\leq v \leq \pi \end{aligned}$$



$$\begin{aligned} X f(u,v) &= 2 * \cosh(v/2) * \cos(u) \\ Y f(u,v) &= v \\ Z f(u,v) &= 2 * \cosh(v/2) * \sin(u) \\ 0 &\leq u \leq \pi \\ -\pi &\leq v \leq \pi \end{aligned}$$



POVRŠI U PROSTORU

Inicijalna forma-Catenoid.

$$\begin{aligned} X f(u,v) &= 2 * \cosh(v/2) * \cos(u) \\ Y f(u,v) &= v \\ Z f(u,v) &= 2 * \cosh(v/2) * \sin(u) \\ -\pi &\leq u \leq \pi \\ -\pi &\leq v \leq \pi \end{aligned}$$

Katenoid je trodimenzionalna površ koja se dobija rotacijom oko x ose. Ukoliko ne računamo ravan, to je prva otkrivena minimalna površ. Njeno otkriće se pripisuje Ojleru. Realni primeri (slike dole desno) jesu Saint Louis Science Center u SAD-u, i wormhole, ili crvotočina. Korišćen program: K3DSurf.

