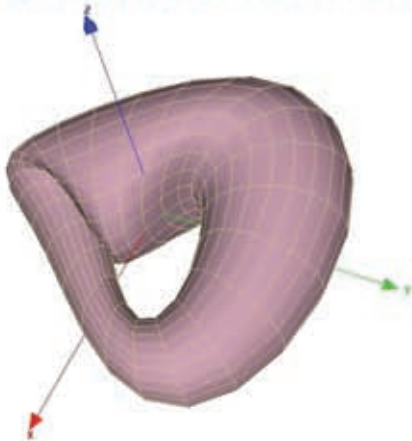


# MATEMATIKA U ARHITEKTURI 2

Arhitektonski fakultet Univerziteta u Beogradu; Prof. dr Ljiljana Petruševski; Student Martina Milosavljević, 2013/057

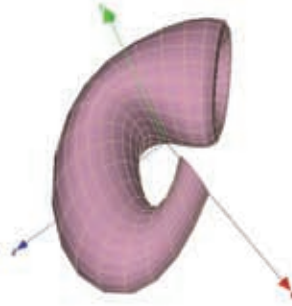
## POVRŠI U PROSTORU



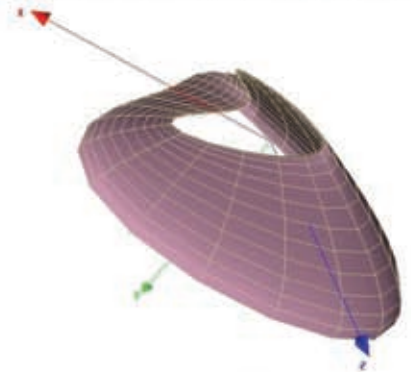
INICIJALNA FORMA-JEDNAČINA KLEIN-A.

$$\begin{aligned} X F(U,V) &= 2 * (1 - \cos(V)/2) * \cos(U) * \cos(V) \\ Y F(U,V) &= 2 * (1 - \cos(V)/2) * \sin(U) \\ Z F(U,V) &= (4 + 2 * (1 - \cos(V)/2) * \cos(U)) * \sin(V) \\ 0 &\leq U \leq 2 * \pi \\ 0 &\leq V \leq 2 * \pi \end{aligned}$$

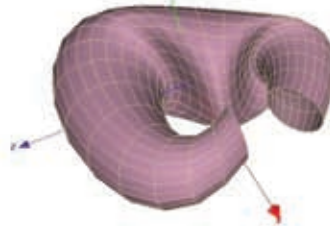
MODIFIKACIJOM INICIJALNE JEDNAČINE KLEIN-A DOBIJA SE FORMA IZRAŽENE ARHITEKTONIČNOSTI. ISTRAŽIVANJEM JE DOBIJENA FORMA SPECIFIČNE ARHITEKTONIKE, KOJA PODSEĆA NA NEKAKVU NADSTREŠNICU.



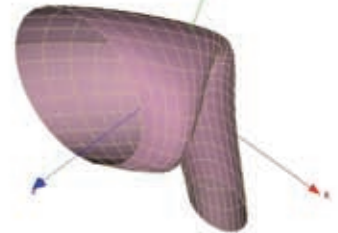
$$\begin{aligned} X F(U,V) &= 2 * (1 - \cos(V)/2) * \cos(U) * \cos(0.7 * V) \\ Y F(U,V) &= 2 * (1 - \cos(V)/2) * \sin(U) \\ Z F(U,V) &= (4 + 2 * (1 - \cos(V)/2) * \cos(U)) * \sin(V) \\ 0 &\leq U \leq 2 * \pi \\ 0 &\leq V \leq 2 * \pi \end{aligned}$$



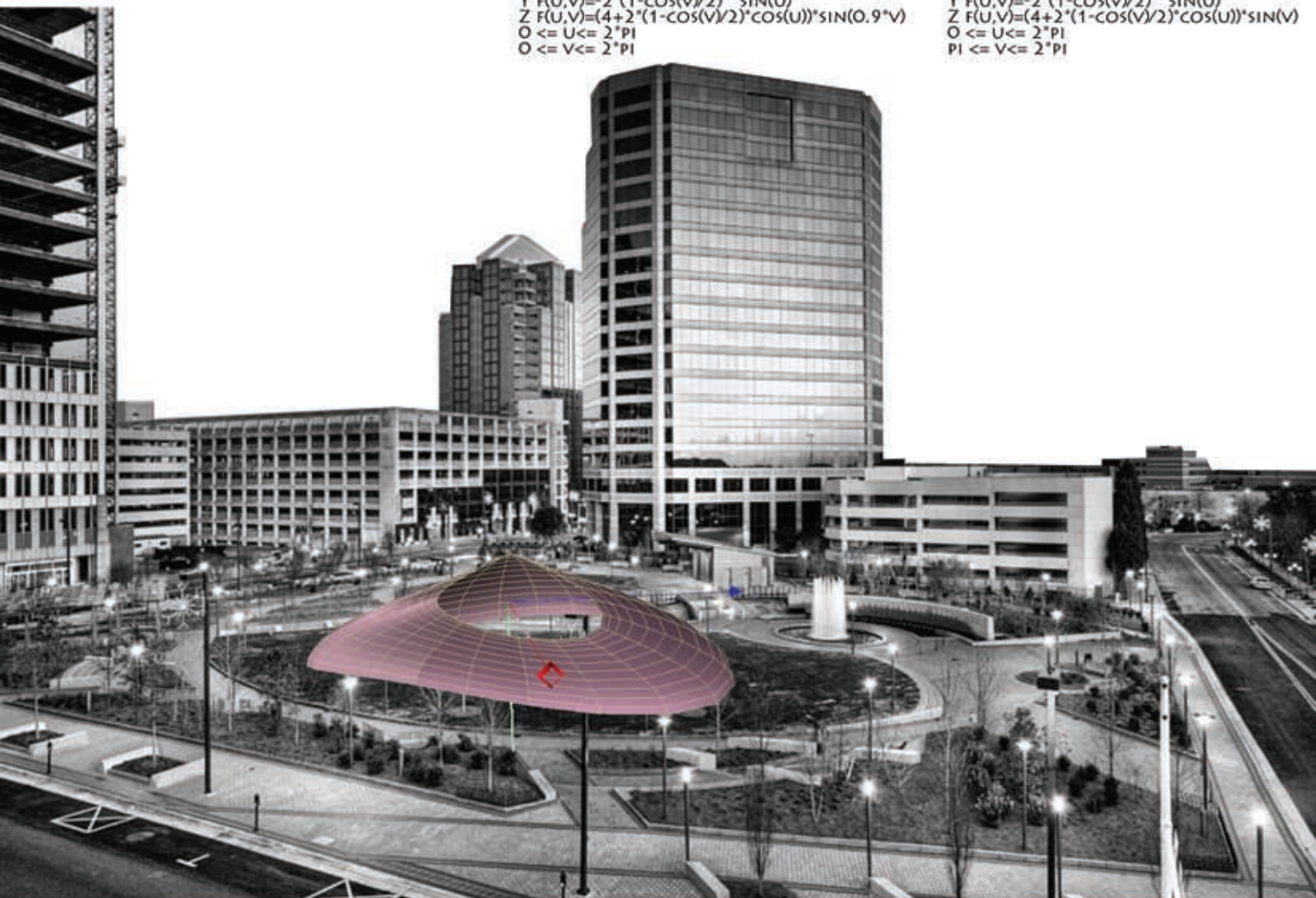
$$\begin{aligned} X F(U,V) &= 2 * (1 - \cos(V)/2) * \cos(U) * \cos(V) \\ Y F(U,V) &= 2 * (1 - \cos(V)/2) * \sin(0.5 * U) \\ Z F(U,V) &= (4 + 2 * (1 - \cos(V)/2) * \cos(U)) * \sin(V) \\ 0 &\leq U \leq 2 * \pi \\ 0 &\leq V \leq 2 * \pi \end{aligned}$$



$$\begin{aligned} X F(U,V) &= 2 * (1 - \cos(V)/2) * \cos(U) * \cos(V) \\ Y F(U,V) &= 2 * (1 - \cos(V)/2) * \sin(U) \\ Z F(U,V) &= (4 + 2 * (1 - \cos(V)/2) * \cos(U)) * \sin(0.9 * V) \\ 0 &\leq U \leq 2 * \pi \\ 0 &\leq V \leq 2 * \pi \end{aligned}$$



$$\begin{aligned} X F(U,V) &= 2 * (1 - \cos(V)/2) * \cos(U) * \cos(V) \\ Y F(U,V) &= 2 * (1 - \cos(V)/2) * \sin(U) \\ Z F(U,V) &= (4 + 2 * (1 - \cos(V)/2) * \cos(U)) * \sin(V) \\ 0 &\leq U \leq 2 * \pi \\ \pi &\leq V \leq 2 * \pi \end{aligned}$$



Faculty of Architecture, University of Belgrade; Prof. Ljiljana Petruševski, PhD; Student Martina Milosavljević, 2013/057

# MATHEMATICS IN ARCHITECTURE 2