

# Inženjersko crtanje primenom računara

šk. 2023/24. godina

**II semestar**

Fond časova: 2+2

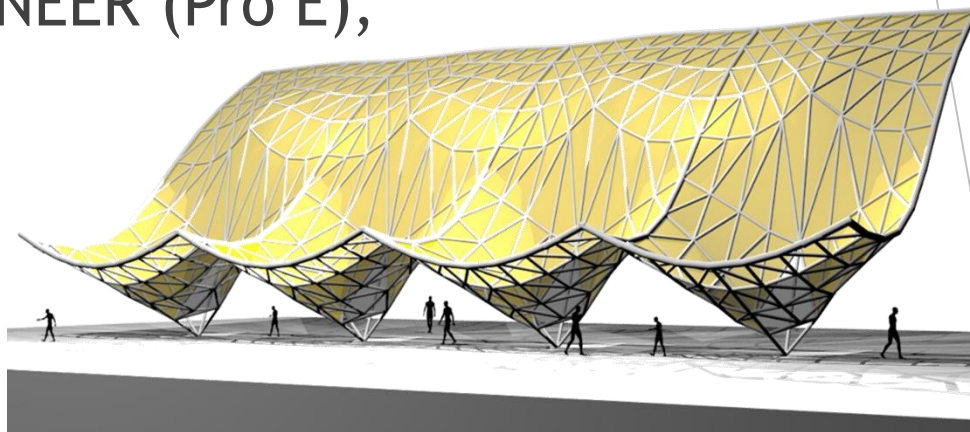


$P_1$

*111 p*

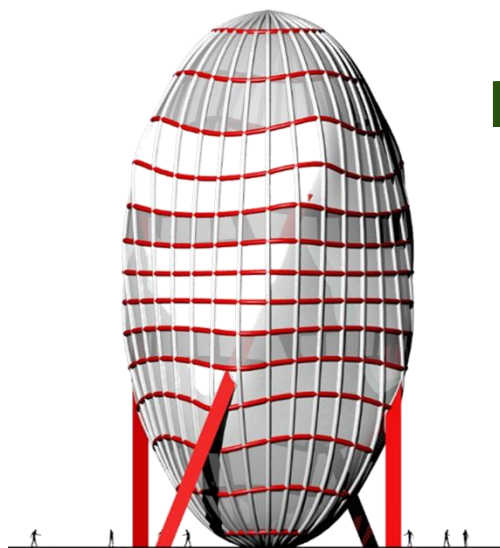
# Savremeni programi za tehničko crtanje i geometrijsko modelovanje:

- AutoCAD,
- ArhiCAD,
- SolidWorks,
- Rhinoceros,
- Pro/ENGINEER (Pro E),
- 3D Max,
- Catia,
- Maya, ...



## Besplatni programi i editori za grafički dizajn:

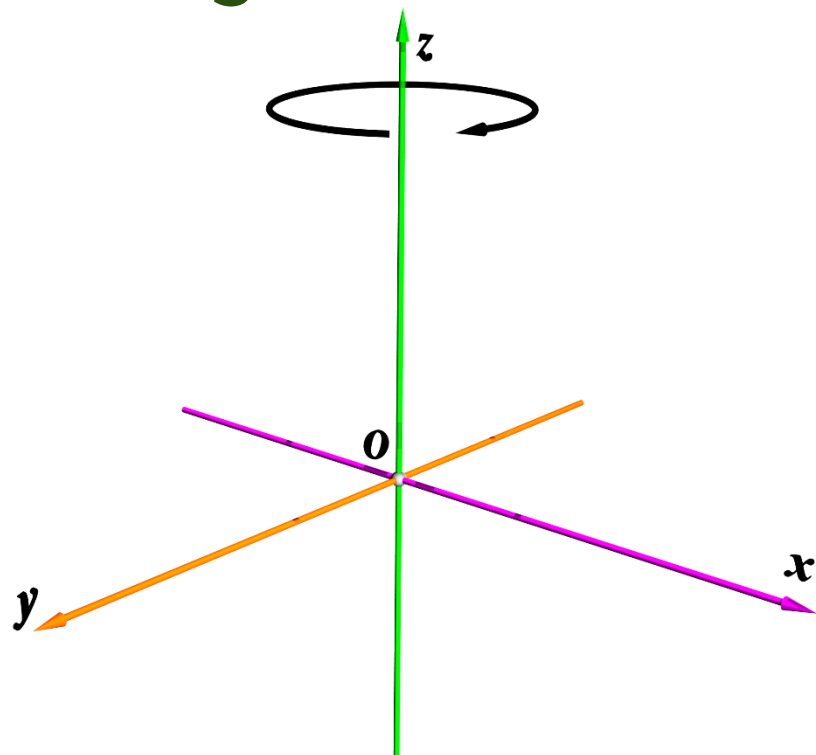
- Inkscape,
- SketchUp,
- 3D Crafter,
- FreeCAD,
- Illustrator,
- MakeHuman, ...



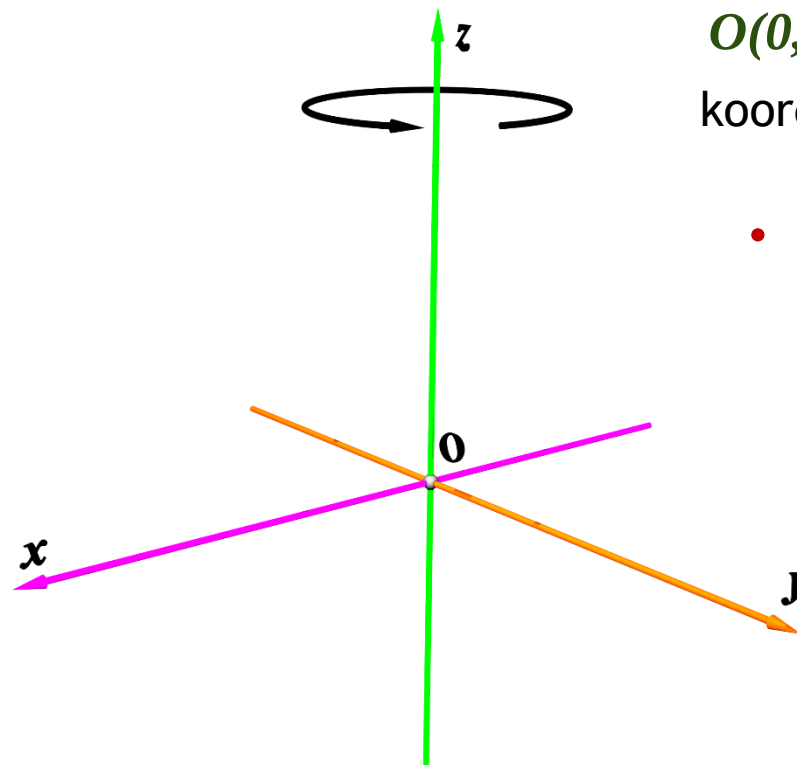
Osnovni elementi prostora:

- tačka,
- prava,
- ravan.

Pravougli koordinatni sistem:



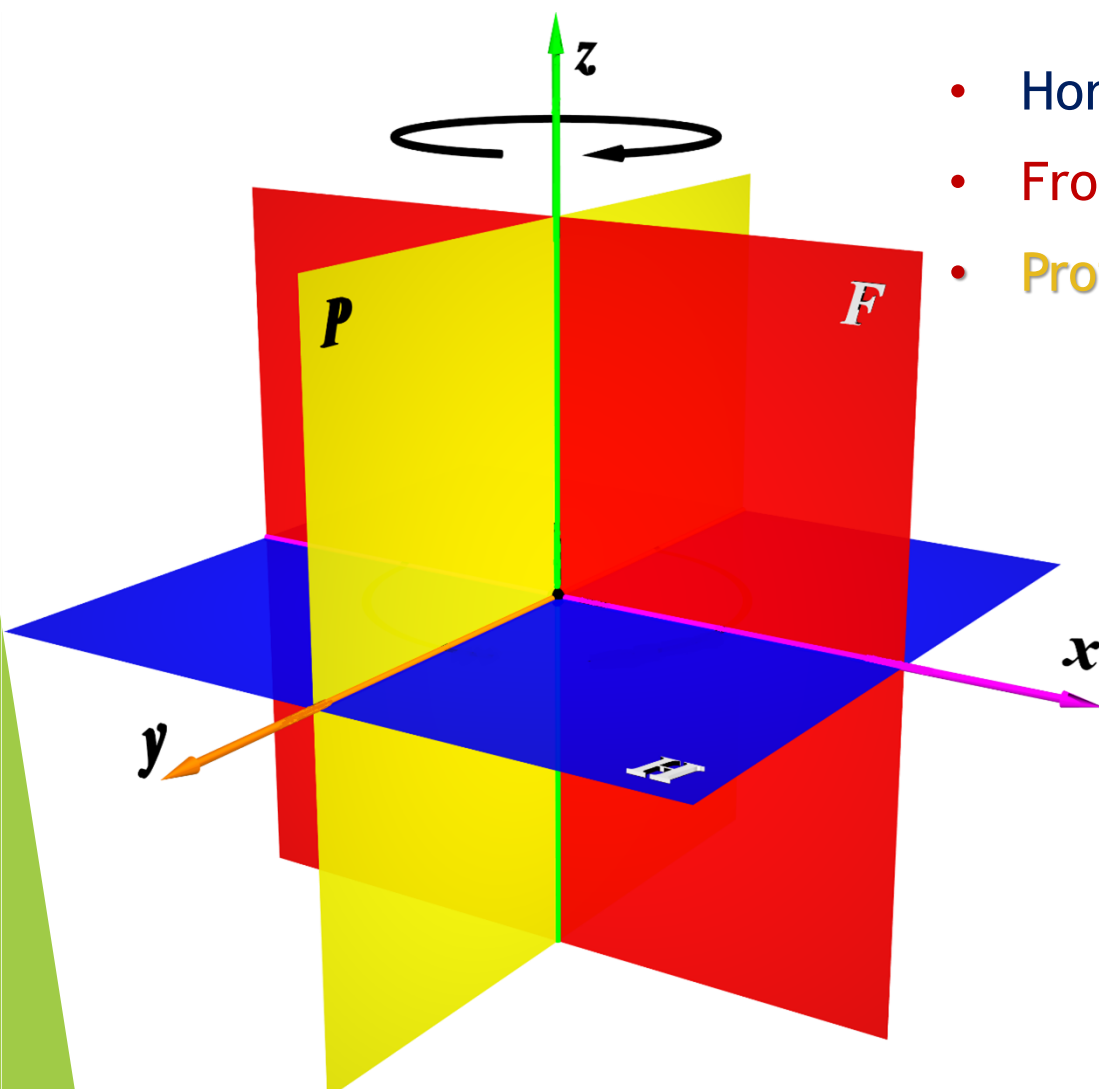
- LEVA orijentacija koordinatnog sistema



- DESNA orijentacija koordinatnog sistema

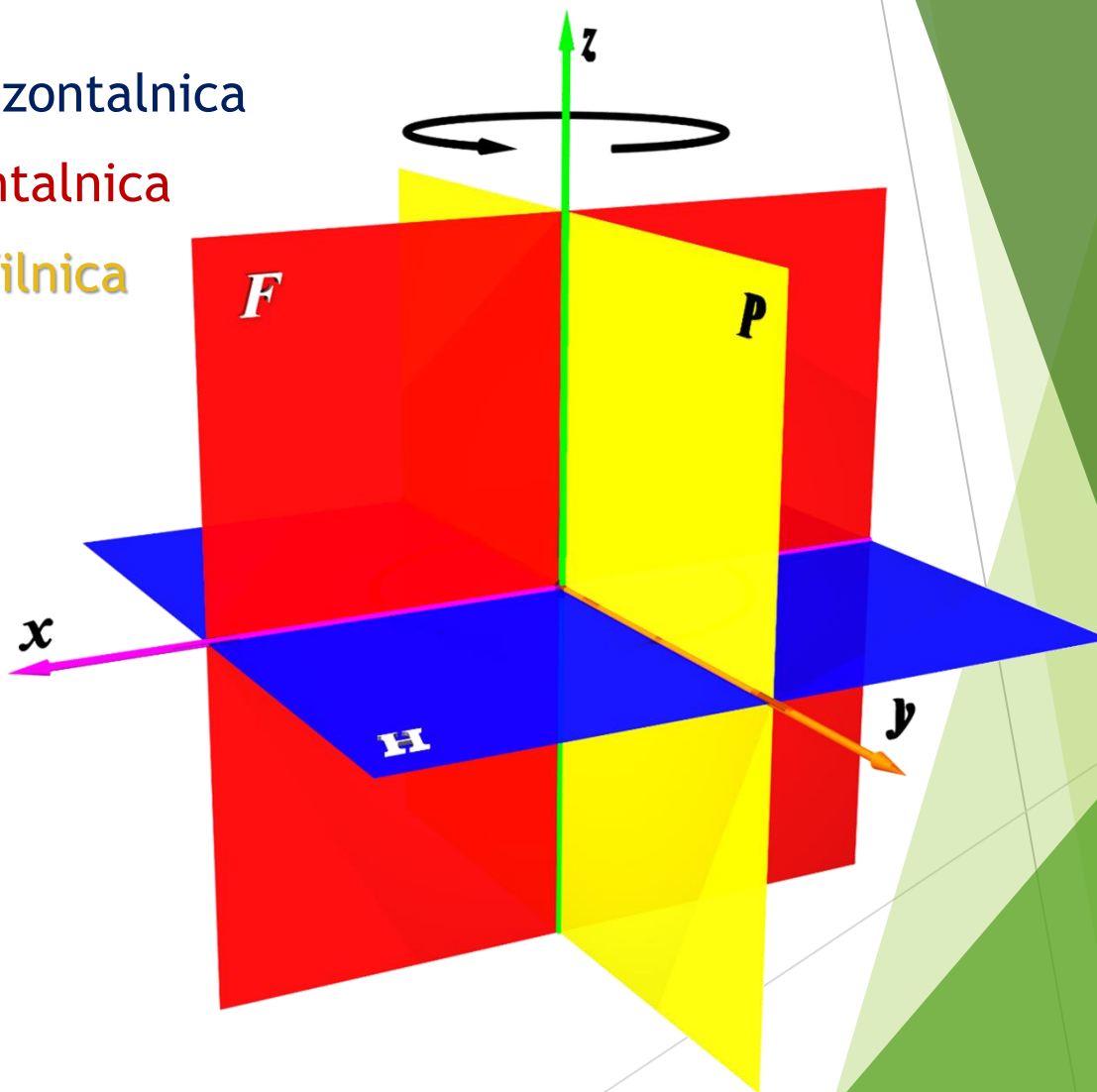
- Tačka  
 $O(0, 0, 0)$   
koordinatni početak
- Prave  
 $x, y, z$   
ose

# Dekartov pravougli koordinatni sistem



- LEVI koordinatni sistem

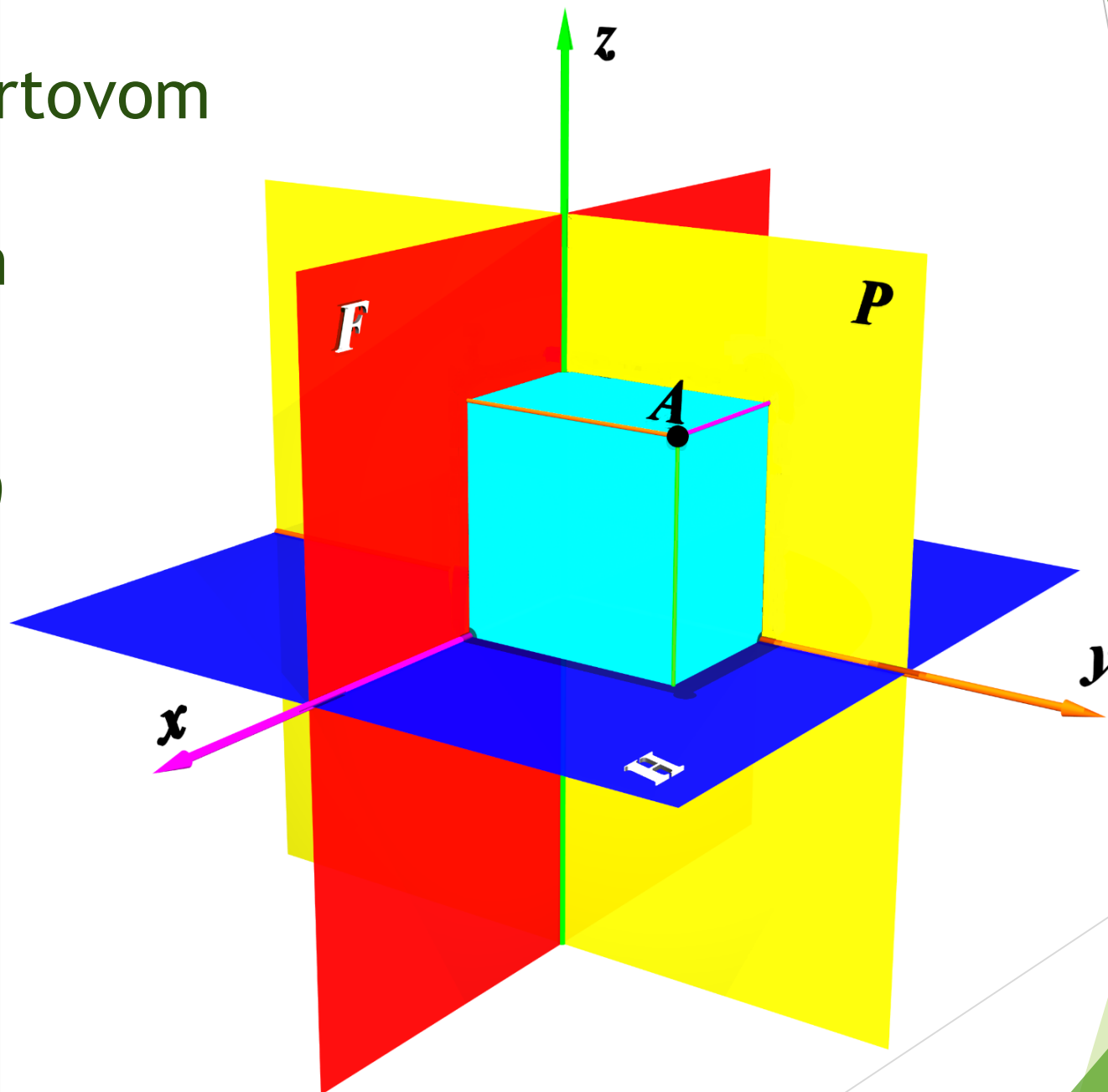
- Horizontalnica
- Frontalnica
- Profilnica



- DESNI koordinatni sistem

Tačka u Dekartovom  
pravouglom  
koordinatnom  
sistemu:

$$A(x_A, y_A, z_A)$$



Prava u Dekartovom  
pravouglom  
koordinatnom  
sistemu:

$$a(A, B)$$

$$A(x_A, y_A, z_A)$$

$$B(x_B, y_B, z_B)$$

