

## Copilot

Yes, you're correct. I apologize for the confusion. If you want  $\theta$  to be the angle from the x-axis to the y-axis (in the xy-plane), and  $\phi$  to be the angle from the xy-plane to the z-axis, you should use the Euler rotation sequence 'zyz'. Here's how you can modify the code:

```
key_rot = sp.spatial.transform.Rotation.from_euler('zyz',  
                                                  np.column_stack(  
                                                    [key_theta,  
                                                    key_phi,  
                                                    np.zeros_like(key_theta)  
                                                    ]  
                                                  )  
)
```

In this modified code, the 'zyz' sequence of rotations is used. This means that the rotation is performed in 3 steps: first around the z-axis (which corresponds to  $\theta$ ), then around the y-axis (which corresponds to  $\phi$ ), and finally around the z-axis again (which is a zero rotation in this case).

I hope this helps! Let me know if you have any other questions. 😊