

HW3.5. Find the axis and angle that would produce a given rotation matrix

Suppose frame 1 starts aligned with frame 0 and then rotates by an angle θ (in radians) about an axis w . Find $\theta \in [0, \pi]$ and w , given that R describes the resulting orientation of frame 1 in the coordinates of frame 0.

Python

```
import numpy as np

R = np.array([[ -0.32523475, -0.82681149,
               -0.45891734], [-0.93943136, 0.33799315,
               0.05682745], [0.10812532, 0.44960360,
               -0.88665975]])
```

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w = matrix (rtol=0.01, atol=1e-08)



θ = number (rtol=0.01, atol=1e-08)



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Single attempt

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Homework 3

Assessment
overview

Total 23/23
points:

Score: 80%

Question

Value: 2

History: 1, 2, 2, 2

Awarded points: 2/2

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