HW3.4. Find angular velocity with respect to a different frame

The orientation of frame 1 in the coordinates of frame 0 is:

$$R_{01} = \begin{bmatrix} -0.86 & -0.43 & -0.26 \\ -0.47 & 0.88 & 0.11 \\ 0.19 & 0.22 & -0.96 \end{bmatrix}$$

The angular velocity of frame 0 with respect to frame 1 in the coordinates of frame 0 is:

$$w_{1,0}^{0} = \begin{bmatrix} 0.25 \\ 0.05 \\ -0.53 \end{bmatrix}$$

Python

```
import numpy as np

R_1in0 = np.array([[-0.86260385,
-0.43115787, -0.26460818], [-0.47062762,
0.87579954, 0.10716725], [0.18553772,
0.21697480, -0.95838285]])
w_10in0 = np.array([[0.24837129],
[0.05493537], [-0.52928686]])
```

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Find the angular velocity of frame 1 with respect to frame 0 in the coordinates of frame 1:

$w_{0,1}^{1} =$ matrix (rtol=0.01, atol=1e-08)

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Homework 3

Assessment overview

Total points: 23/23

Score: 80%

Question

Value: 2

History: 1 2 3 4 5 1 1 1

Awarded points: 5/5

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