HW3.2. Find the time derivative of a rotation matrix given angular velocity

The angular velocity of frame 1 with respect to frame 0, in the coordinates of both frame 0 and frame 1, is as follows:

$$w_{01}^{0} = \begin{bmatrix} -0.91 \\ 0.23 \\ -0.23 \end{bmatrix} \qquad w_{01}^{1} = \begin{bmatrix} -0.62 \\ -0.02 \\ -0.74 \end{bmatrix}$$

Python

```
import numpy as np

w_01in0 = np.array([[-0.91168550],
[0.23072672], [-0.22692628]])
w_01in1 = np.array([[-0.62309931],
[-0.01704610], [-0.73983611]])
```

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Find $\dot{R}_{01}(R_{01})^{-1}$:

$\dot{R}_1^0(R_1^0)^{-1} =$ matrix (rtol=0.01, atol=1e-08)

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Homework 3

Assessment overview

Total points: 23/23

Score: 80%

Question

Value: 3

History: 1 1 2 3 1 2

Awarded points: 5/5

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