HW4.3. Find the pose that is produced by a given twist

Frame 0 is fixed in space and frame 1 is fixed in a body. The current pose of frame 1 in the coordinates of frame 0 is M. The body moves with spatial twist \mathcal{V}_s for 1 second. Find the new pose T_{01} of frame 1 in the coordinates of frame 0.

import numpy as np M = np.array([[0.09100927, 0.07249035, 0.99320817, 2.25817043], [-0.75127085, 0.65966953, 0.02069348, -1.72885787], [-0.65368909, -0.74805164, 0.11449593, -0.03163089], [0.00000000, 0.00000000, 0.00000000, 1.00000000]]) V_s = np.array([[0.08814971], [0.69281560], [0.86389055], [-0.15560807], [-0.60701232], [0.26247371]]) copy this text

Save & Grade
Single attempt

 $T_{01} =$

Save only

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

Additional attempts available with new variants

8

8

Assessment overview

Total 22/22 points:

Score: 110%

Question

Value:

History:

1

1

1

2

Awarded points:

5/5

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Attached files

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