Homework 5

Harrison Sandstrom

I. Part 1

After applying the desired force based on the parameters given. The projected displacement by Bernoulli Beam theory is 0.03675m while the end displacement by the beam in this case is 0.038705m. This is equivalent to an increase of 5.3% for the simulated beam compared to the Bernouilli beam theory. We can see this displacement in figure 1.

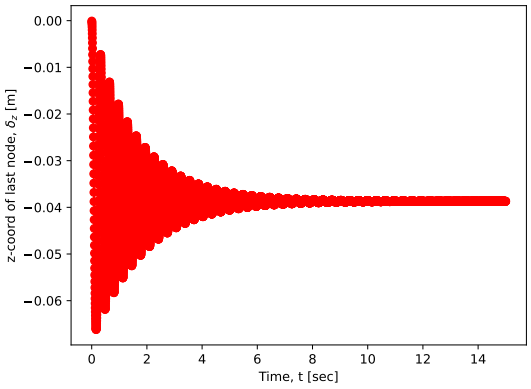

Fig. 1. Steady State Attenuation of the Discrete Shell visualizing δ_{Plate}

References

[1] M. K. Jawed, Lecture_14_DiscreteShells_Simulation.ipynb, UCLA, 2025