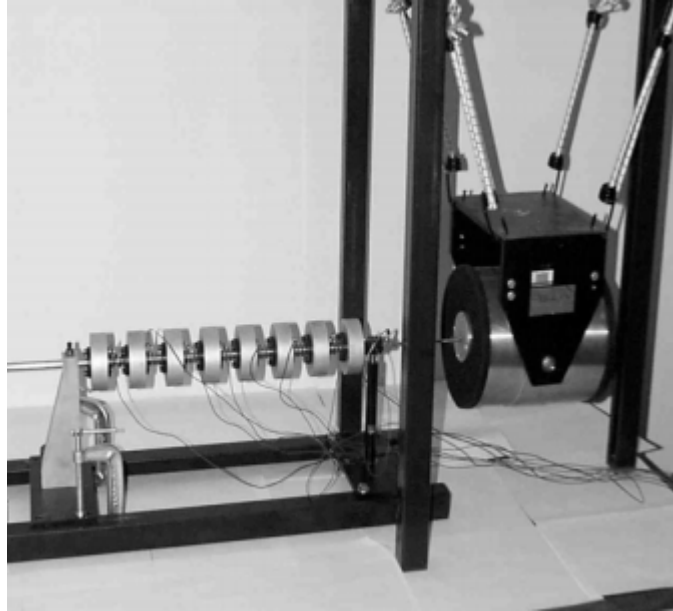


8th Class Exercise



Recall the 8-dof system we studied in the beginning of the semester. The project team at Los Alamos informed us that there is 15% uncertainty in the 4th and 6th mass values. Report the values of the seven resonant frequencies considering these uncertainties (in Hertz).

You were given the experimental values for the first seven natural frequencies for this system earlier in the semester. The project team at Los Alamos informed us that there is variability in the measurements when experiments are repeated. The coefficient of variance for each natural frequency normalized as percentage is given as follows: 10%, 5%, 15%, 20%, 15%, 5%, 10%.

Plot the experimental results against the model predictions considering the provided information regarding the uncertainty in model predictions. Quantitatively compare the agreement (or lack thereof) between the model predictions and experimental measurements.