

## Model Reduction of Dynamical Systems

### Exercise 3

June 07, 2019

**Problem 1.** *Asymptotic waveform evaluation*

- (a) Implement the asymptotic waveform evaluation method (using the pole-residue framework). Test your script on the clamped beam model `beam.mat` [1]. Plot the transfer function of the full and reduced system between the frequency range  $\omega \in [10^{-3}, 10^3]$  for different orders of the reduced system.

## References

- [1] <http://slicot.org/20-site/126-benchmark-examples-for-model-reduction>.