Figure 3.1: Spectral and Cross-Spectral Density Function Estimates

Luco-Wong model is $2.5 \times 10^{-4} \text{sec/m}$. 
Figure 3.2: Mean Amplitudes for $R = 250m, \alpha = 2.5 \times 10^{-4}$
Figure 3.3: Mean Amplitudes: HOP
Figure 3.4: Amplitudes at different stations, $R = 250\text{m}$, $\alpha = 2.5 \times 10^{-4}$
Figure 3.5: Amplitudes at different stations, $R = 250$m, $\alpha = 0.001$
Figure 3.6: Amplitudes at different stations, $R = 750\text{m}$, $\alpha = 2.5 \times 10^{-4}$
Figure 3.7: Phases at different stations, $R = 250m$, $\alpha = 2.5 \times 10^{-4}$
Figure 3.8: Phases at different stations, \( \bar{r} = 750\text{m}, \alpha = 2.5 \times 10^{-4} \)
Figure 3.9: Difference Index for Amplitudes and Phases, $R = 250\text{m}, \alpha = 2.5 \times 10^{-4}$
Figure 3.10: Difference Index for Amplitudes and Phases, $R = 750m, \alpha = 2.5 \times 10^{-4}$
Figure 3.11: Difference Index for Amplitudes and Phases, $R = 250\text{m}, \alpha = 0.001$
Figure 3.12: Cumulative Distributions of Amplitudes
Figure 3.13: Computational efficiency
Figure 6.12: Conditional Probability of Failure for different parameter values.

Figure 6.13: Conditional Probability of Failure for different parameter values. Fixed Supports.
Figure 6.14: Total Probability of Failure for Various Levels of Parameter Uncertainty

Figure 6.15: Effect of Uncertainty for Different Mean Values of the Parameters
Figure 6.16: Total Probability of Failure for Various Levels of Parameter Uncertainty. Fixed Supports

Figure 6.17: Effect of Uncertainty for Different Mean Values of the Parameters. Fixed Supports
Figure 6.18: Conditional Probability of Failure for different parameter values. Flexible Supports

Figure 6.19: Conditional Probability of Failure for different parameter values. Fixed Supports
Figure 6.20: Total Probability of Failure for Various Levels of Parameter Uncertainty

Figure 6.21: Effect of Uncertainty for Different Mean Values of the Parameters
Figure 6.22: Total Probability of Failure for Various Levels of Parameter Uncertainty. Fixed Supports

Figure 6.23: Effect of Uncertainty for Different Mean Values of the Parameters. Fixed Supports
Figure 6.24: Conditional Probability of Failure for different parameter values. Bending Moment at the Support

Figure 6.25: Conditional Probability of Failure for different parameter values. Fixed Supports. Shear Force at the Support
Figure 6.26: Total Probability of Failure for Various Levels of Parameter Uncertainty

Figure 6.27: Effect of Uncertainty for Different Mean Values of the Parameters
Figure 6.28: Total Probability of Failure for Various Levels of Parameter Uncertainty

Figure 6.29: Effect of Uncertainty for Different Mean Values of the Parameters