ELECENG 3TR4 Lab 4: Random Processes

Aaron Pinto pintoa9 Raeed Hassan hassam41

April 3, 2021

Numerical Experiment #1: Evaluation of Autocorrelation and Power Spectral Density

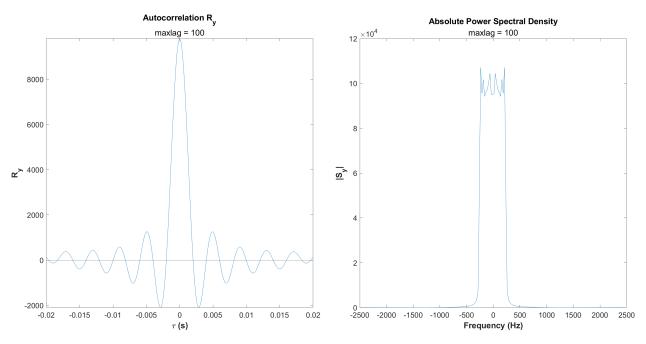


Figure 1: Autocorrelation and PSD for maxlag = 100

Numerical Experiment #2: A sinusoid buried in noise

Numerical Experiment #3: Delay Estimation

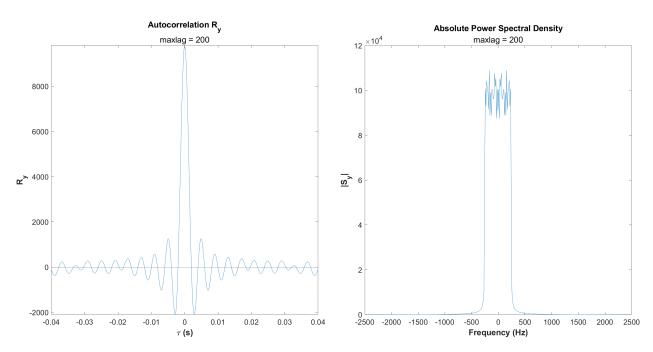


Figure 2: Autocorrelation and PSD for maxlag = 200

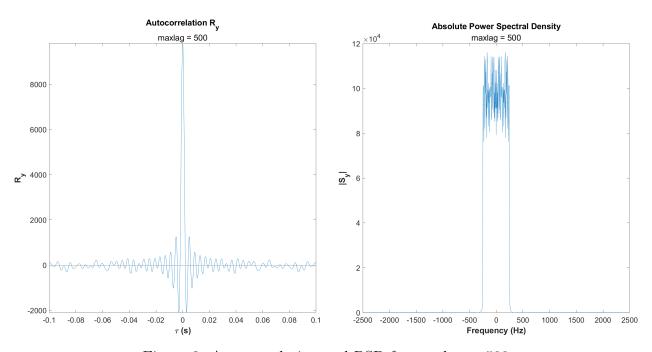


Figure 3: Autocorrelation and PSD for maxlag = 500

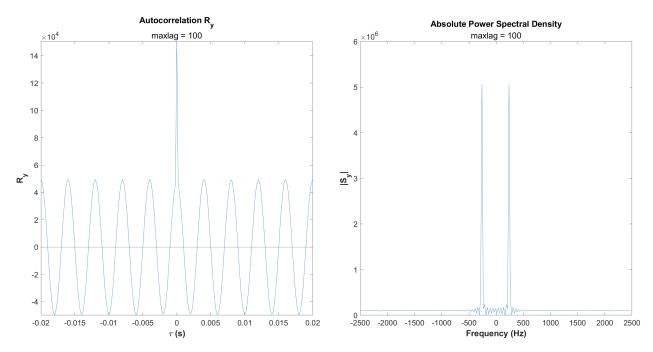


Figure 4: Autocorrelation and PSD for maxlag = 100

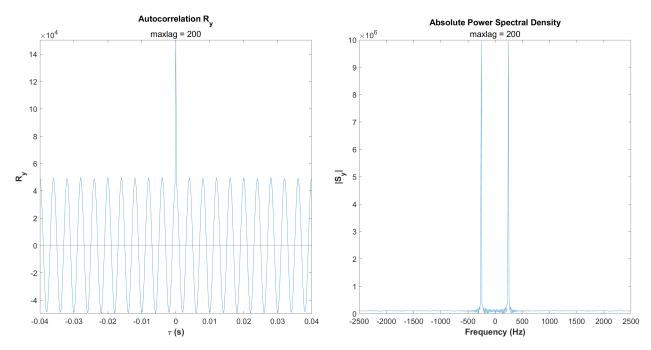


Figure 5: Autocorrelation and PSD for maxlag = 200

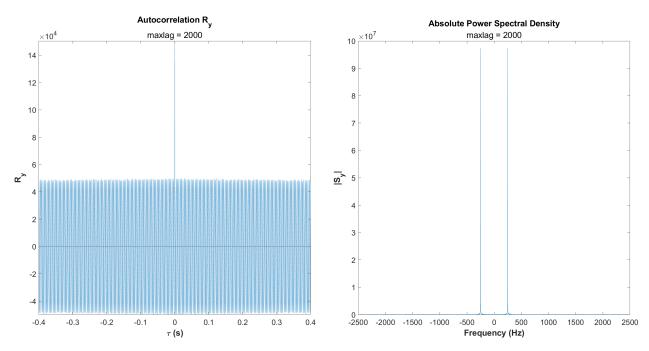


Figure 6: Autocorrelation and PSD for maxlag = 2000

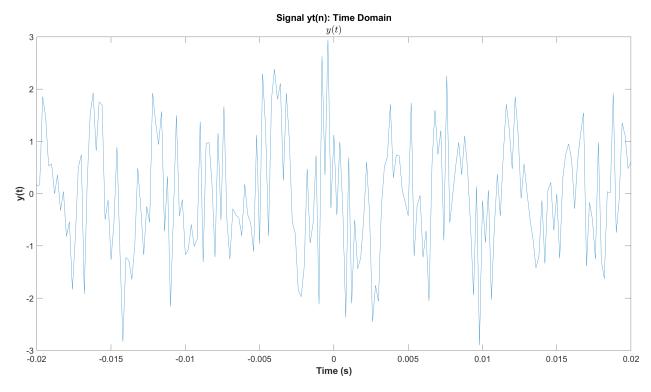


Figure 7: Time Domain

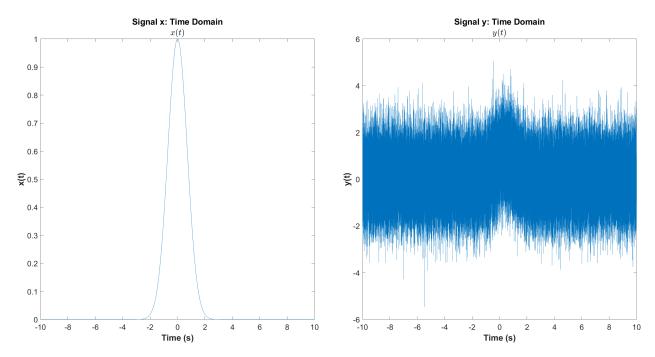


Figure 8: Time Domain

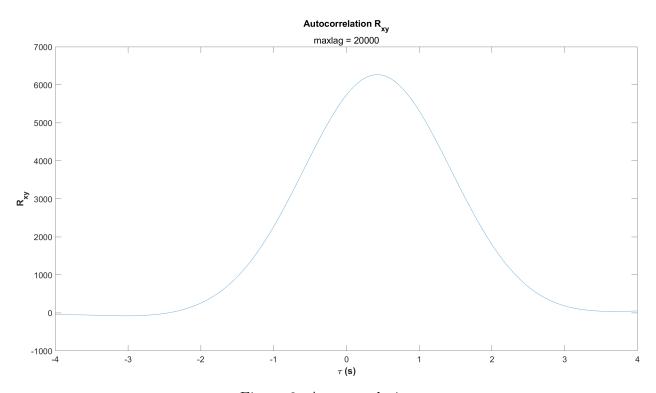


Figure 9: Autocorrelation