

Notes for the Final Exam

Please note that the final exam is a Closed Book test. There will be 15 sub-problems in the final exam, which are grouped into 5 Problems.

Chapter 12

1. Section 12-1 is excluded from the final exam.
2. Periodogram and the roles of data window and spectra window.
3. Determination of the data window and spectral window that minimize the bias.
4. Determination of LMS spectral window as well as 2-to-1 rule.

Chapter 13

1. Optimal Linear Estimator and Orthogonality Principle
2. Best Linear Estimator under Regularity
3. Whiteness of MS error process
4. All zeros of MS error filter $E[z]$ satisfy $|z| \leq 1$.
5. AR process and Wide-Sense Markov of finite order.
6. FIR predictor and its scalable implementation (Levinson's algorithm)
7. The subject of Kalman innovations is excluded from the final exam.