CHAPTER 5: RANDOM PROCESSES

Reading:

Sections 5.2-5.6 of Blandford and Thorne
Chapter 5 is available at http://www.pma.caltech.edu/Courses/ph136/ph136.html
As usual, most of the applications are in Example Exercises. You should read these examples whether or not you attempt to solve them.

TA:

The TA for this problem set is Alex Putilin: Office: 253 Lauritsen. His office hours are Tuesday 3PM to 5PM.

Problems

NOTE: For students who have had enough prior experience with statistical mechanics that some or all of the problems assigned below are not a useful learning experience: Do **not** waste your time working such problems. Instead, pick other problem(s) that are useful for you.

A. Exercise 5.3 (Wiener Optimal Filter).
B. Exercise 5.5 (Cosmological Density Fluctuations)
C. Exercise 5.7 (L-C-R Circuit)
D. Exercise 5.9 (Fokker-Planck Equation for an Oscillator)