

# ECE 563: Homework 5 - Due November 26th, before noon, 2022

**Problem 1: Cover and Thomas, 7.36** Channel with memory.

**Problem 2: Cover and Thomas, 8.1.** Differential entropy.

**Problem 3: Cover and Thomas, 8.2.** Concavity of determinants.

**Problem 4: Cover and Thomas, 8.7.** Differential entropy bound on discrete entropy.

**Problem 5: Cover and Thomas, 9.2.** Two-look Gaussian channel.