Spring 2008 May 22, 2008 Due: 5/29/08

## Homework No. 6

**1.** Derive the Rayleigh distribution following the outline on pp. 67-68. Show all steps and details.

**2.** Drive the Rician distribution following the outline on pp. 69-71. Show all steps and details.

- **3.** Problem 5.10.
- 4. Following Example 5.1 on page 314, derive the Schwarz inequality.
- 5. Show that the basis functions in Eq. (5.19) and in Eq. (5.24) are orthonormal.