

PRINCETON UNIVERSITY

Fall 2013

ELE 525: Homework #8

Assigned: Wednesday December 13, 2013

Due: Monday January 6, 2014

- 1 . Textbook, p. 691, Problem 22.12. Equivalence of the regression and the solution from the orthogonality equation.
2. p. 692, Problem 22.15. Alternative derivation of the Wiener-Hopf equation (22.89) and (22.90).
3. p. 693, Problem 22.20 Optimum smoothing filter for uncorrelated signal and noise.
4. p. 551, Problem 18.5. MLE of $g(\theta)$.
5. p. 551, Problem 18.6. The CRLB and the Cauchy-Schwartz inequality.

Hint: Eq. (18.113) of Problem 18.4 of page 550.