

## Applied Algebra Worksheet for Lecture 17

Comments, questions and feedback due before class on Monday, April 9 (before 7am).

Completed worksheets due on Monday, April 13.

1. Find the scaling and wavelet vectors for the Haar wavelet transform when  $N = 4$ .
2. Consider a wavelet transform in the case  $N = 4$ , with scaling vector  $u_0 = (1, 1, -1, 0)$  and wavelet vector  $v_0 = (2, -1, -1, 0)$ . Find the analysis matrix  $T_a$  for this wavelet transform, and compute  $T_a(0, 2, 1, 0)$ .