

## Homework # 8, due Fri, Dec 2nd.

1. Create a MATLAB function that inputs a signal, a lowpass and a highpass filter (i.e., their coefficients), and performs the wavelet transform. Apply it repeatedly to a piecewise linear continuous signal of your choice using the Daubechies-2 filters. Can you detect the discontinuity in the 1st derivative of the signal?
2. Create a MATLAB function that checks whether a given pair of lowpass and highpass filters (given in terms of their coefficients) satisfies the conjugate quadrature rule.