

Figure 5.8: The signal “handel” and its Haar transform.

so first truncate the tail of y to get a vector of length $65536 = 2^{16}$. A plot of the signals corresponding to y and c is shown in Figure 5.8. Then run a program that sets all coefficients of c whose absolute value is less than 0.05 to zero. This sets 37272 coefficients to 0. The resulting vector c_2 is converted to a signal y_2 . A plot of the signals corresponding to y_2 and c_2 is shown in Figure 5.9. When you type `sound(y2)`, you find that the music doesn’t differ

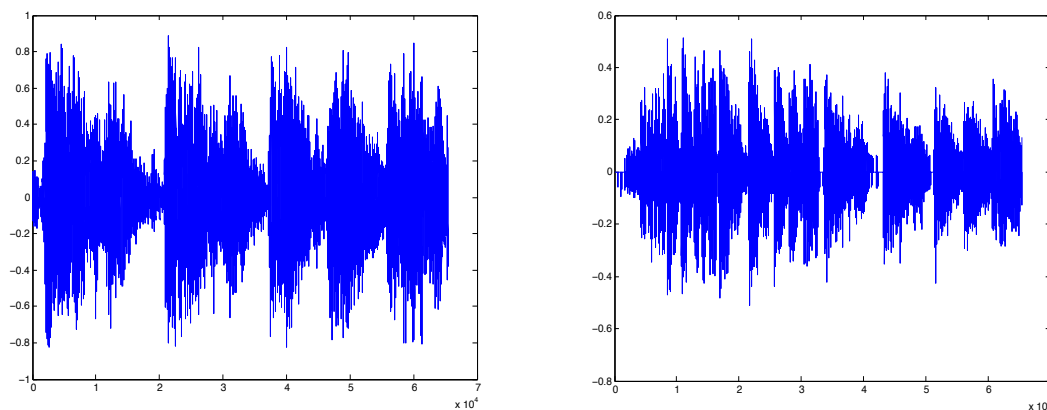


Figure 5.9: The compressed signal “handel” and its Haar transform.

much from the original, although it sounds less crisp. You should play with other numbers greater than or less than 0.05. You should hear what happens when you type `sound(c)`. It plays the music corresponding to the Haar transform c of y , and it is quite funny.