If we consider trigonometric polynomial solutions of (1.4), then from from (1.2) and (1.4) follows that
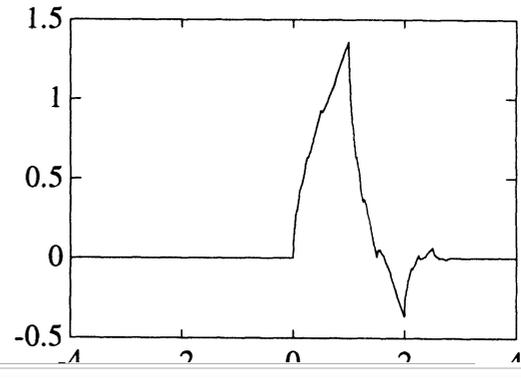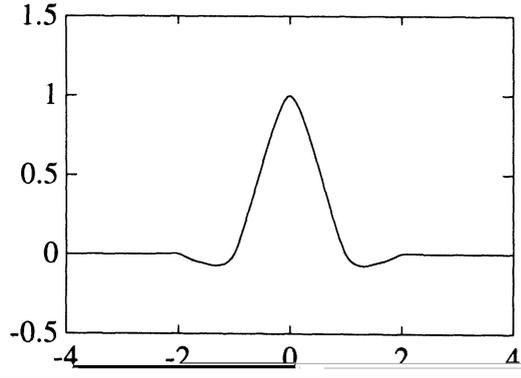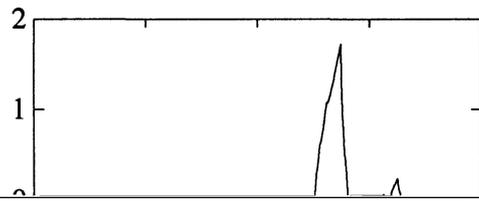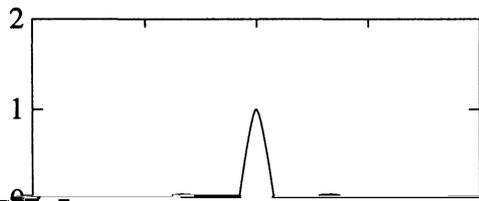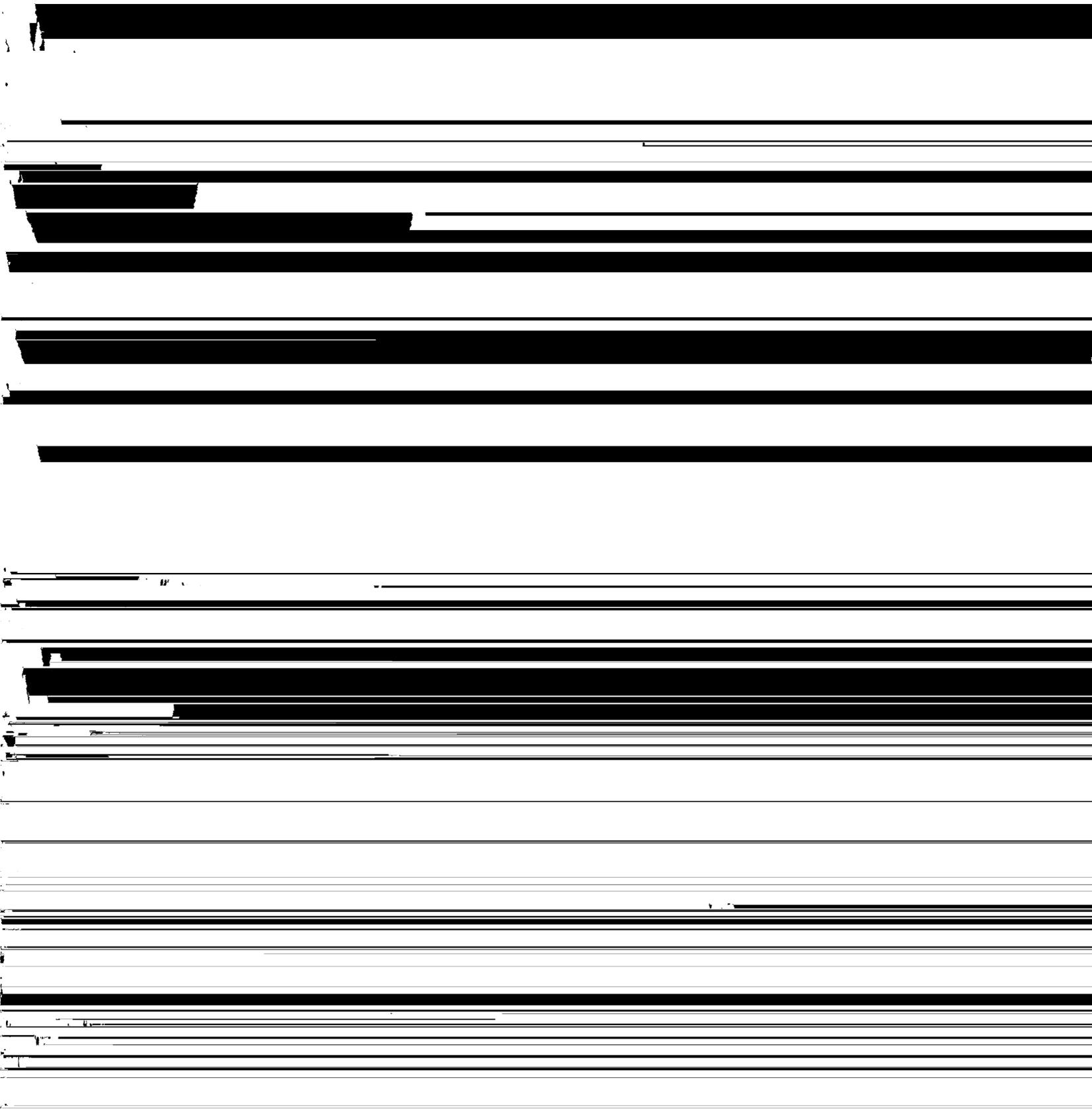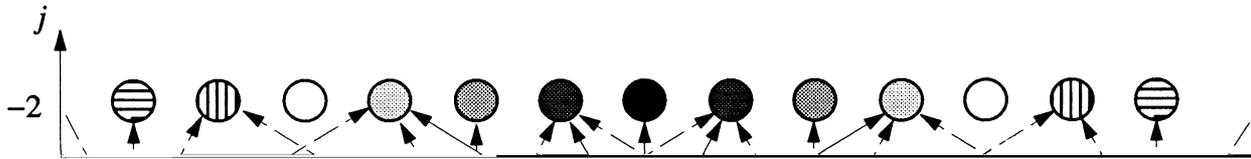
In this case, (1.20) reduces to

$$F_L(x) = F_L(2x) + \sum_{k=1}^{M} \mathcal{P}_{2k-1}^{L}(0) \ \left(F_L(2x - 2k + 1) + F_L(2x + 2k - 1)\right),$$

(1.23)

As a result, we have the following relation

$$a_k \quad \sin \pi k / 2$$

of the wavelets per se [11]. The exact filters for the decomposition are the auto-correlation coefficients of

S0

D1