A Wavelet Tour of Signal Processing

Stéphane Mallat, Academic Press 1999 (2nd edition)

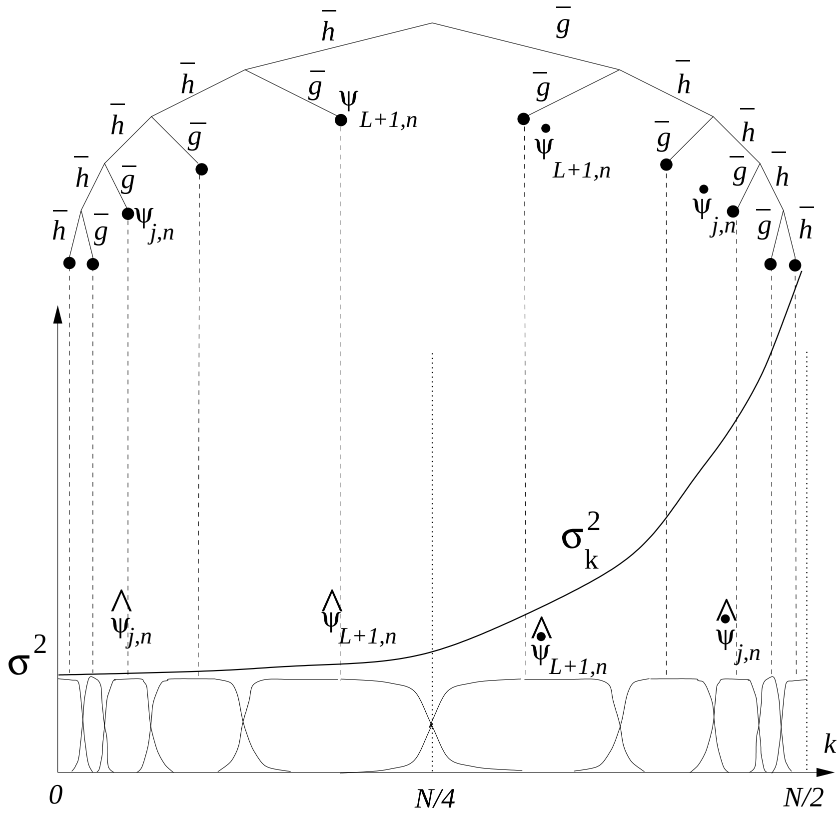

Figure 10.11: Wavelets and mirror wavelets are computed with a wavelet packet filter bank tree, where each branch corresponds to a convolution with a filter $\bar{h}$ or $\bar{g}$ followed by a subsampling. The graphs of the discrete Fourier transforms $|\hat{\psi}_{j,n}[k]$ and $|\widehat{\dot{\psi}}_{j,n}[k]$ are shown below the tree. The variance σ_k^2 of the noise has a hyperbolic growth but varies by a bounded factor on the frequency support of each mirror wavelet.