A Wavelet Tour of Signal Processing

Stéphane Mallat, Academic Press 1999 (2nd edition)

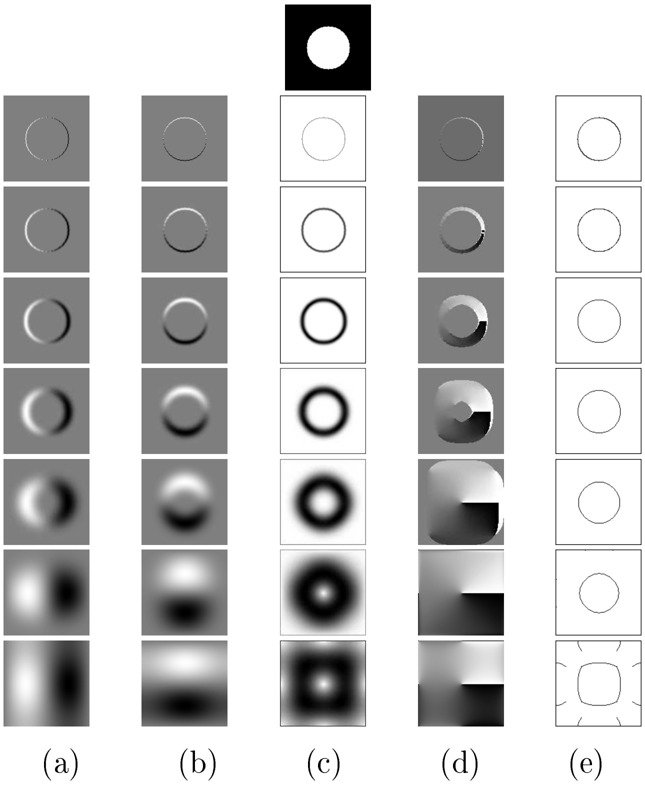

Figure 6.9: The top image has $N^2 = 128^2$ pixels. (a): Wavelet transform in the horizontal direction, with a scale 2^j that increases from top to bottom: $\{W^1 f(u, 2^j)\}_{-6 \leq j \leq 0}$. Black, grey and white pixels correspond respectively to negative, zero and positive values. (b): Vertical direction: $\{W^2 f(u, 2^j)\}_{-6 \leq j \leq 0}$. (c): Wavelet transform modulus $\{Mf(u, 2^j)\}_{-6 \leq j \leq 0}$. White and black pixels correspond respectively to zero and large amplitude coefficients. (d): Angles $\{Af(u, 2^j)\}_{-6 \leq j \leq 0}$ at points where the modulus is non-zero. (e): Wavelet modulus maxima are in black.