

Fig. 6.8. A Wavelet Tour of Signal Processing,  $3^{\rm rd}$  ed. If  $f_{\tau}(t) = f(t-\tau)$  then  $W f_{\tau}(u,a^j) = W f(u-\tau,a^j)$ . Uniformly sampling  $W f_{\tau}(u,a^j)$  and  $W f(u,a^j)$  at  $u = n a^j u_0$  may yield very different values if  $\tau \neq k u_0 a^j$ .