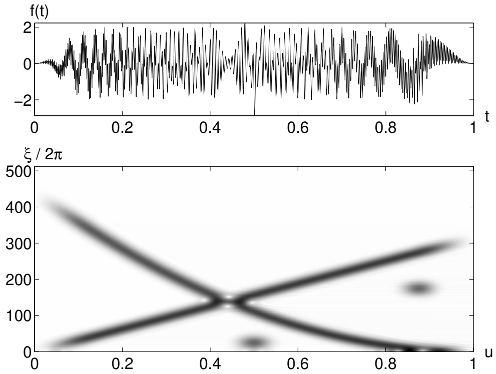
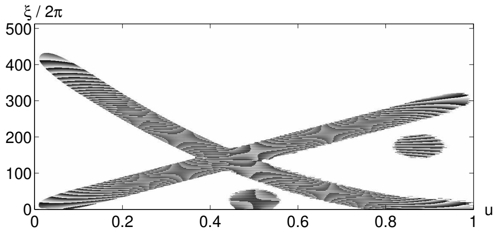
A Wavelet Tour of Signal Processing
Stéphane Mallat, Academic Press 1999 (2nd edition)



(a)



(b)

Figure 4.3: The signal includes a linear chirp whose frequency increases, a quadratic chirp whose frequency decreases, and two modulated Gaussian functions located at $t = 0.5$ and $t = 0.87$. (a) Spectrogram $P_S f(u, \xi)$. Dark points indicate large amplitude coefficients. (b) Complex phase of $Sf(u, \xi)$ in regions where the modulus $P_S f(u, \xi)$ is non-zero.