

23-10-2024

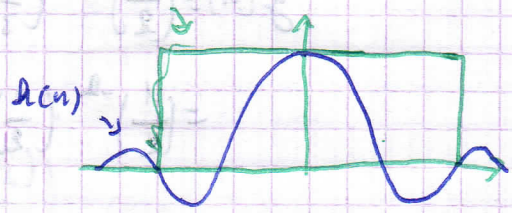
Cours

Windowing Methode

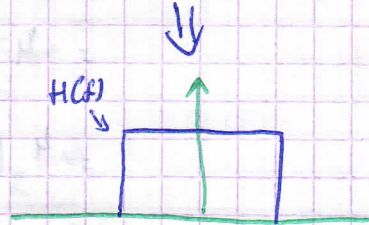
In the practical work we use to design a low and high pass filters using a rectangular window

~~1) Hamming window~~

→ Low pass
$$h(n) = \frac{\sin(2\pi f_c n)}{\pi \cdot n}$$



→ Band pass
$$h_B(n) = 2 \cos(2\pi f_c n) h(n)$$

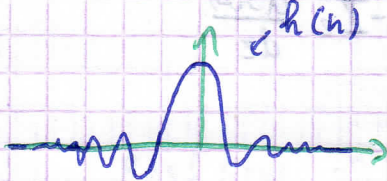


1) Hamming window

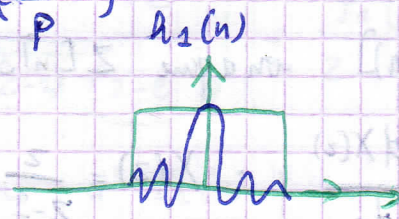
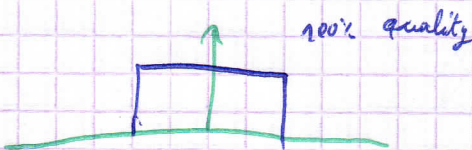
$$W_H(i) = 0,54 + 0,46 \cos\left(\frac{2\pi i}{P-1}\right)$$

2) Raise cosine

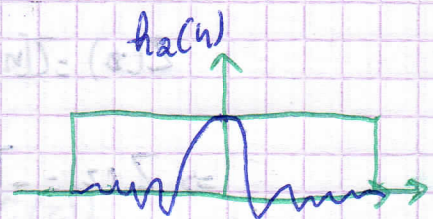
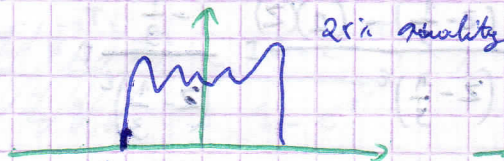
$$W_C(i) = \cos^2\left(\frac{2\pi i}{P}\right)$$



↓ TF



↓ TF



↓ TF

