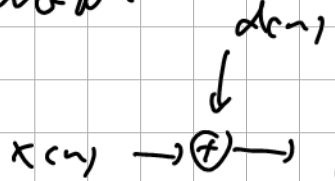
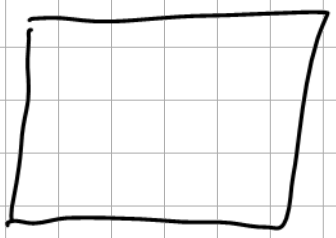
AUGN:



Wiener Filter: $\tilde{X} = 1 - \frac{|D(f)|^2}{|Y(f)|^2}$ ← unknown

observation

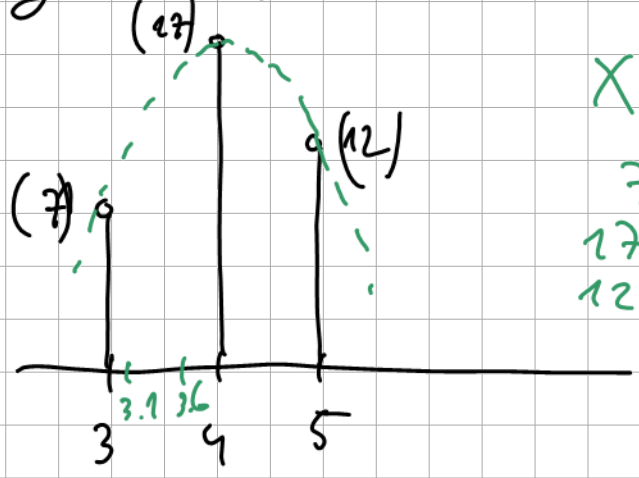
Log Mel Spectrogram



Time Memory of Input

D(f) is assumed to be the mean value over the over the last 5 columns of observation Y

C2)11 T2



$X(h) = a h^2 + 5h + c$

$7 = a \cdot 9 + 5 \cdot 3 + c$

$17 = a \cdot 16 + 5 \cdot 4 + c$

$12 = a \cdot 25 + 5 \cdot 5 + c$

$10 = 7a + 5 \quad \cdot 2$

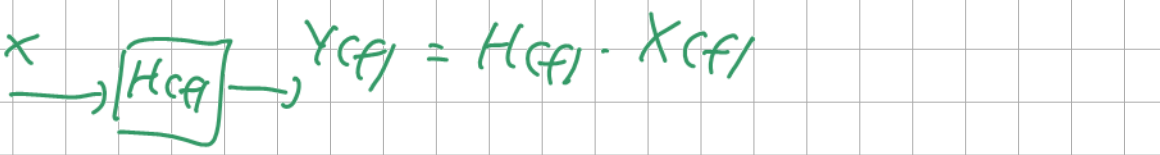
$5 = 16a + 25$

$15 = -2a \Rightarrow a = -\frac{15}{2}$

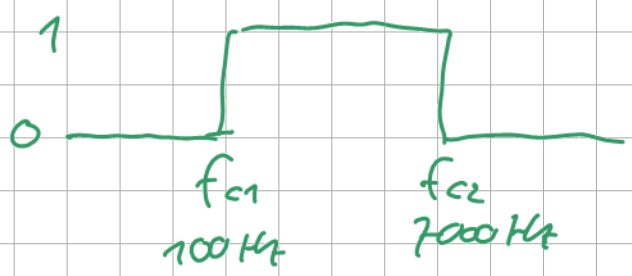
$10 = 7\left(-\frac{15}{2}\right) + 5 \Leftrightarrow 5 = 10 + \frac{105}{2} = 62.5$

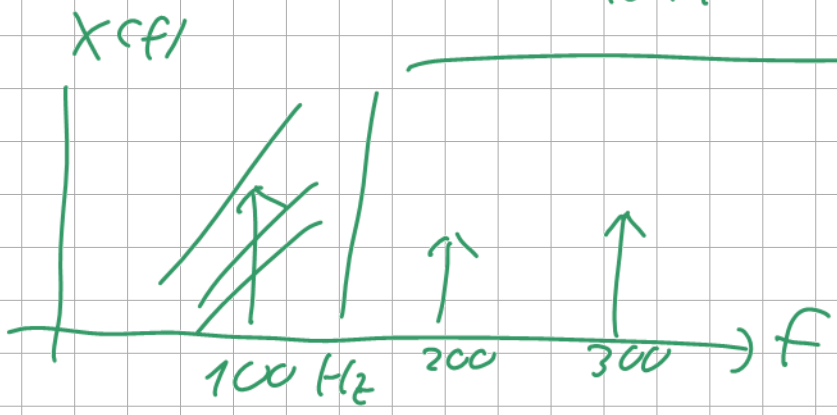
$$C = 7 - \left(-\frac{15}{2}\right)\cdot 9 - 62.5 \cdot 3 = -113$$

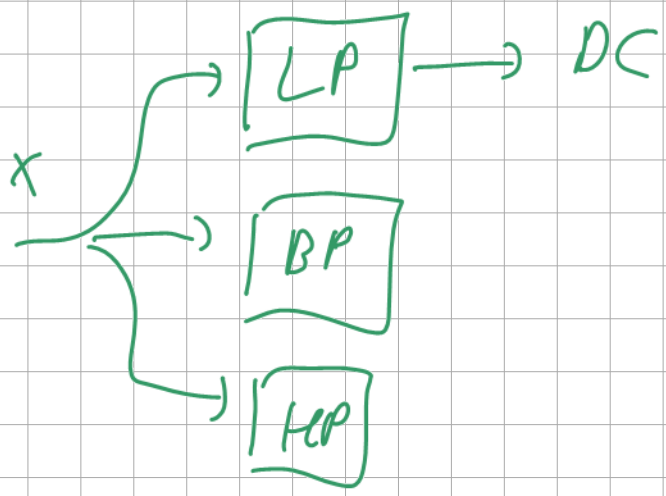
$$X_{(3.1)} = -\frac{15}{2}(3.1)^2 + 62.5 \cdot 3.1 - 113$$

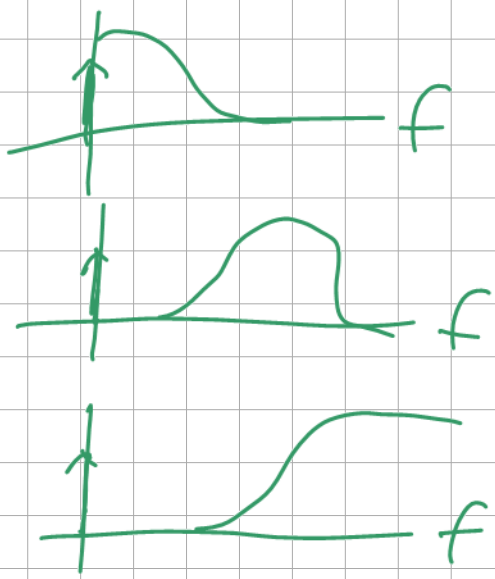


ideal Bandpass









$$h(t) = \varepsilon(t) \cdot \frac{1}{\tau} e^{-\frac{t}{\tau}}$$