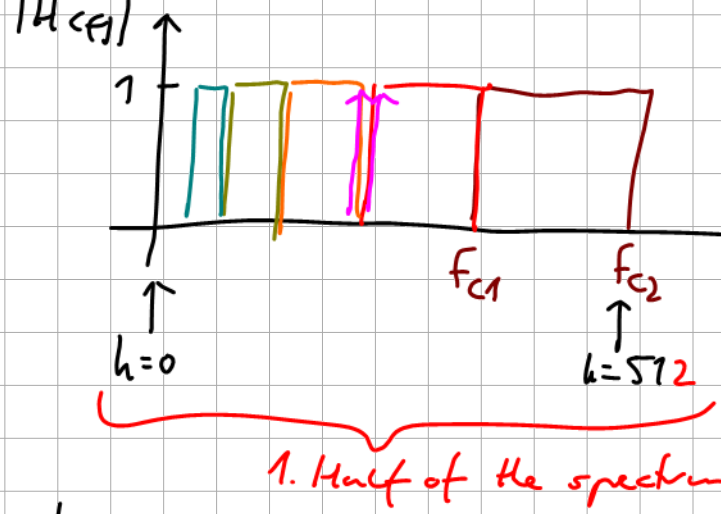
ideal Bandpass

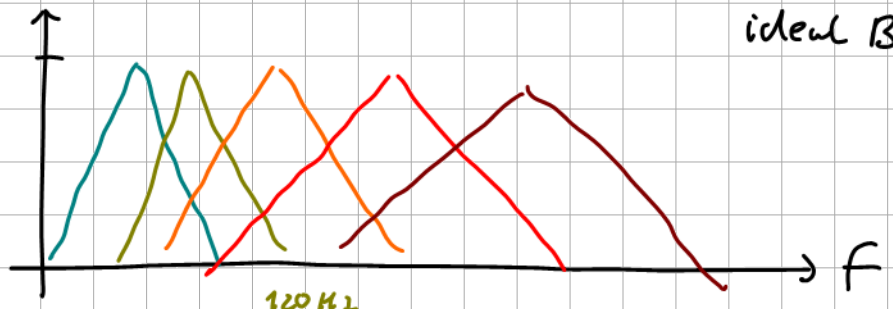


ideal BP have the problem, that small changes in input frequency results in complete different output-signal

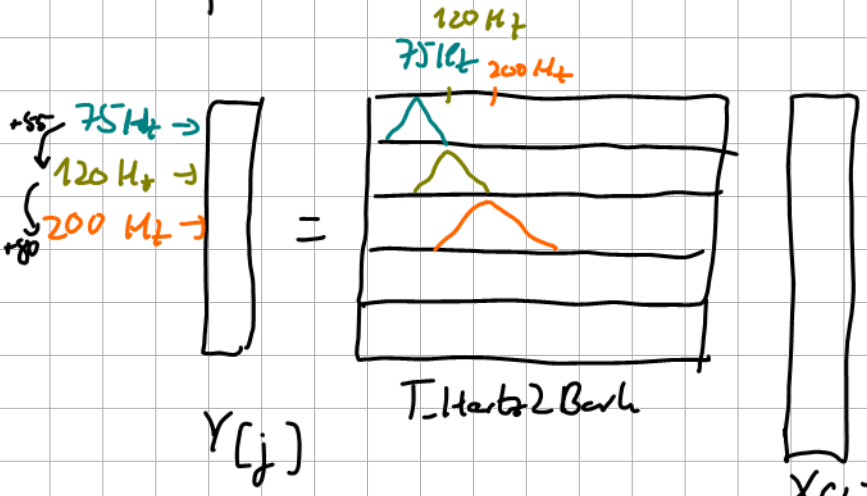
1. Half of the spectrum

$K = 1024 = 2^{10}$

|H(f)|



ideal BP → triangular filters



Y[j]

X(k) (output of the DFT)

Logarithmic frequency scaling

Linear frequency scaling

Bark is a vector.

```
f = np.zeros(Bark.shape)

for n in range(f.shape[0]):
    a = 0
    b = 24000
    while (b-a) > Prec:
```

Decision

if Decision < 0 :

    take Lower or upper region

else :

    take Lower or upper region