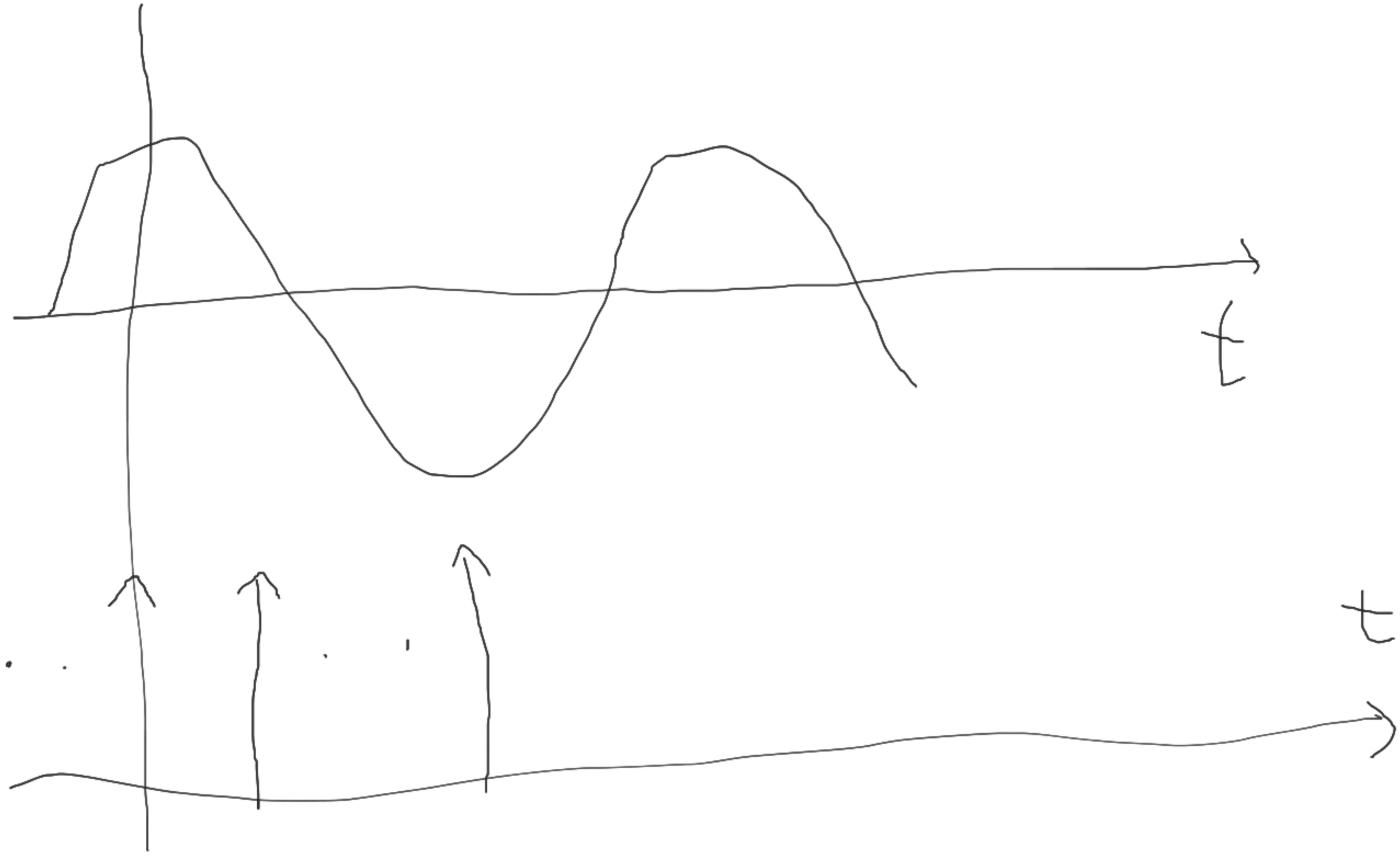

t
t

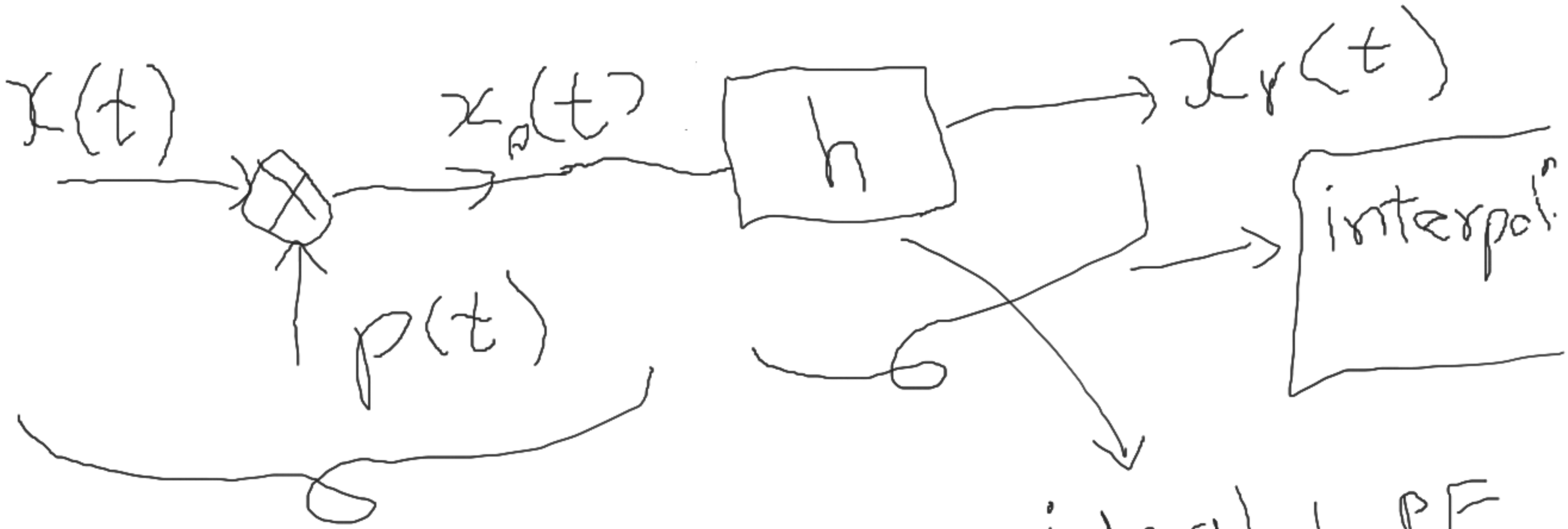
1. $\omega_s = 6\omega_0$ ✓

2. $\omega_s = 3\omega_0$ ✓

$\omega_s > 2\omega_0$

3. $\omega_s = \frac{3}{2}\omega_0$ ✗

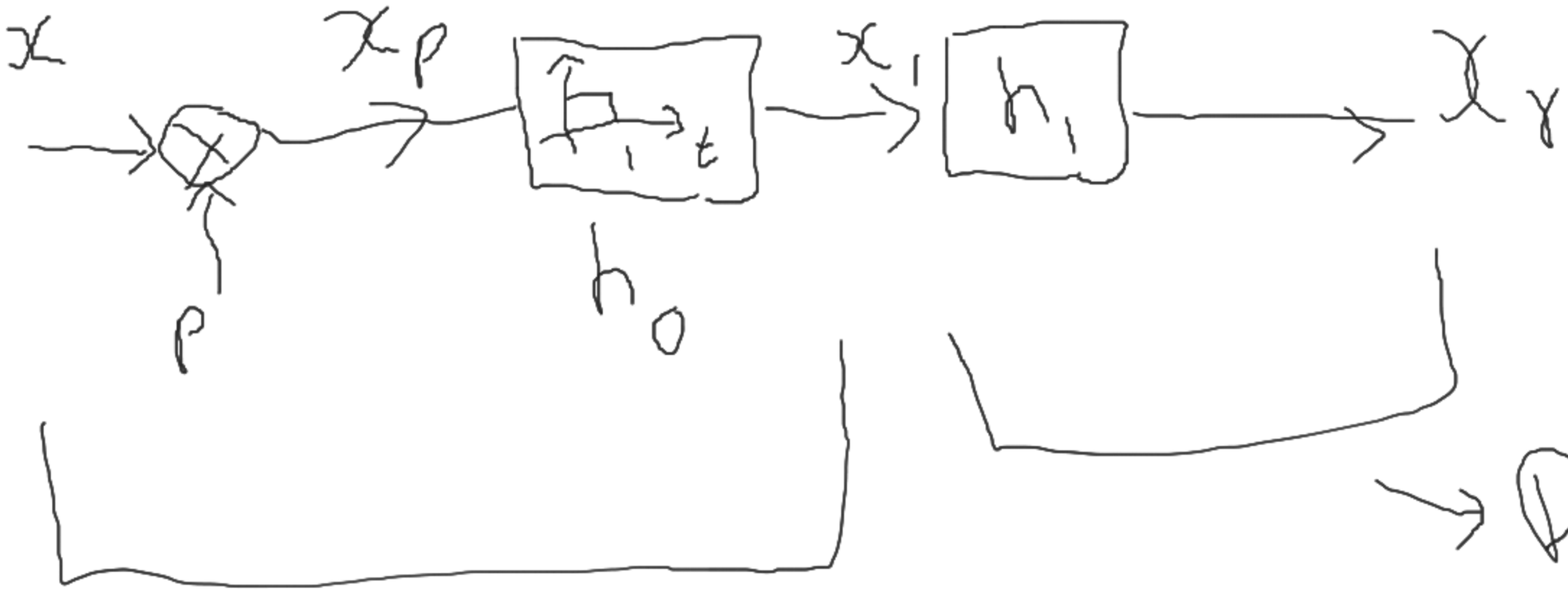
$\omega_s - \omega_0 = 0.5\omega_0$



Sampling model

$x = x_r$

for $h = \text{sinc}$



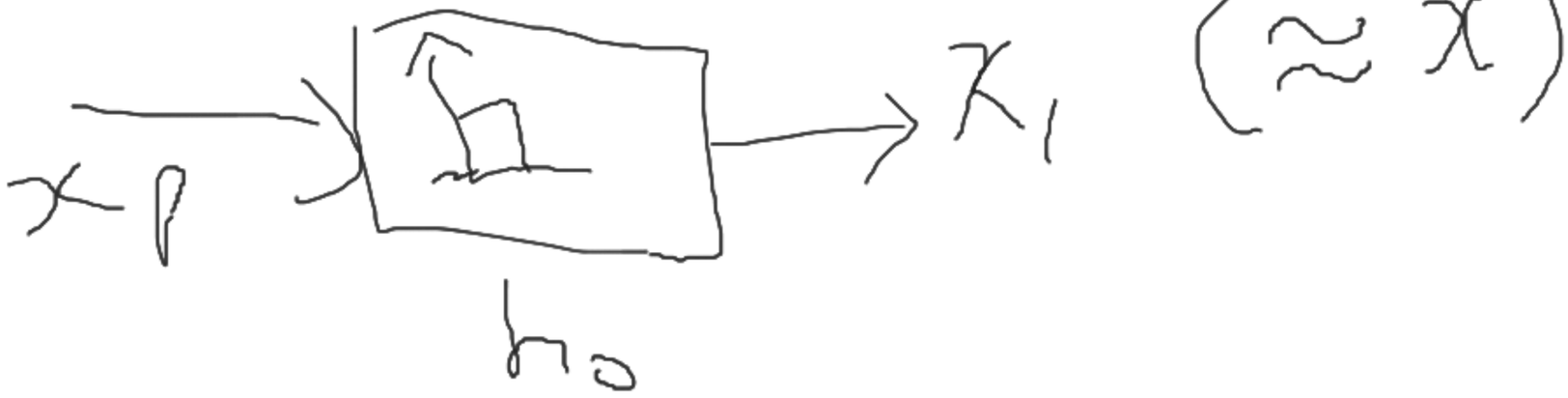
Sample & hold (ADC)

$x_1 \rightarrow$ digital

$h_0 * h_1 =$

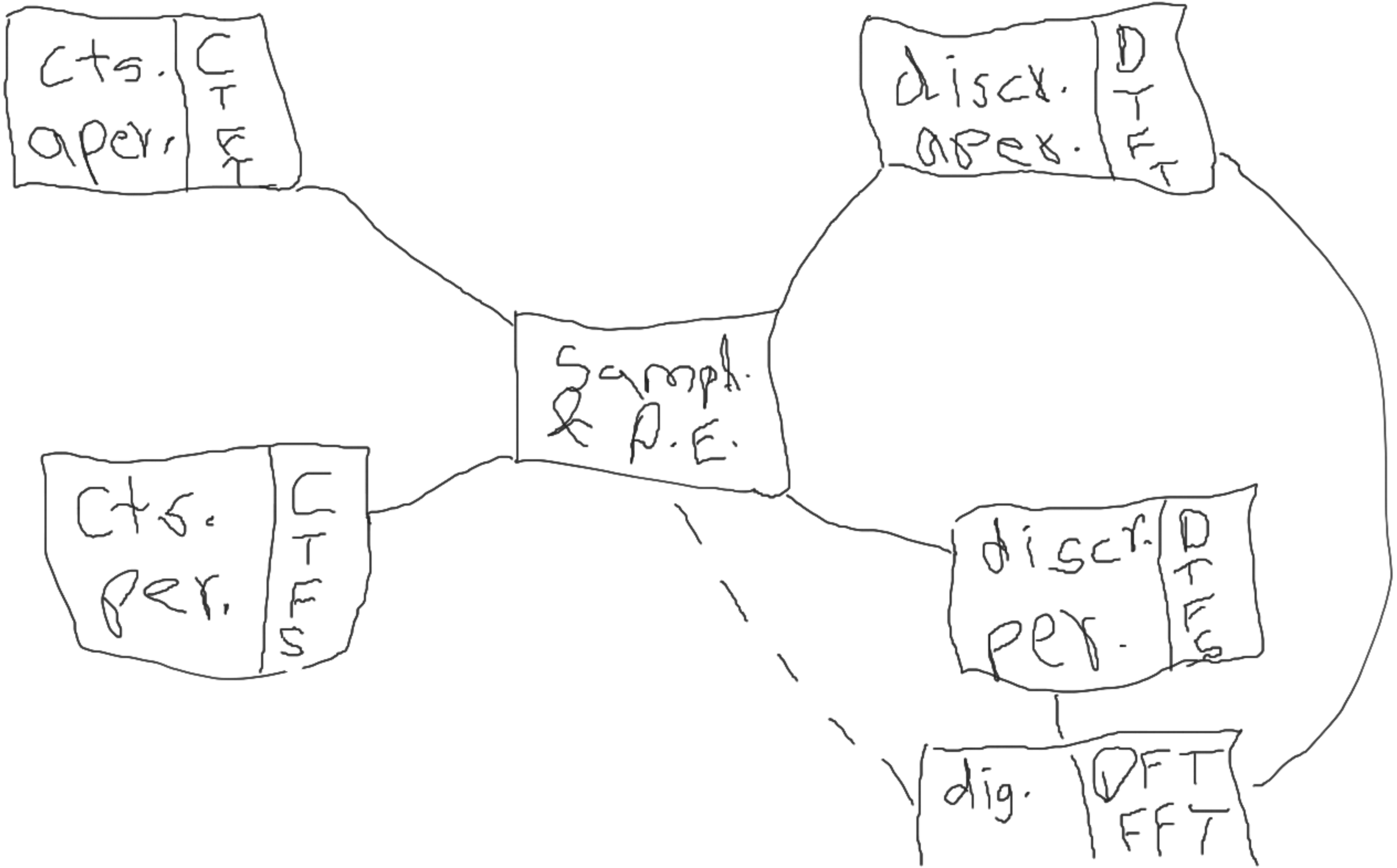
sinc

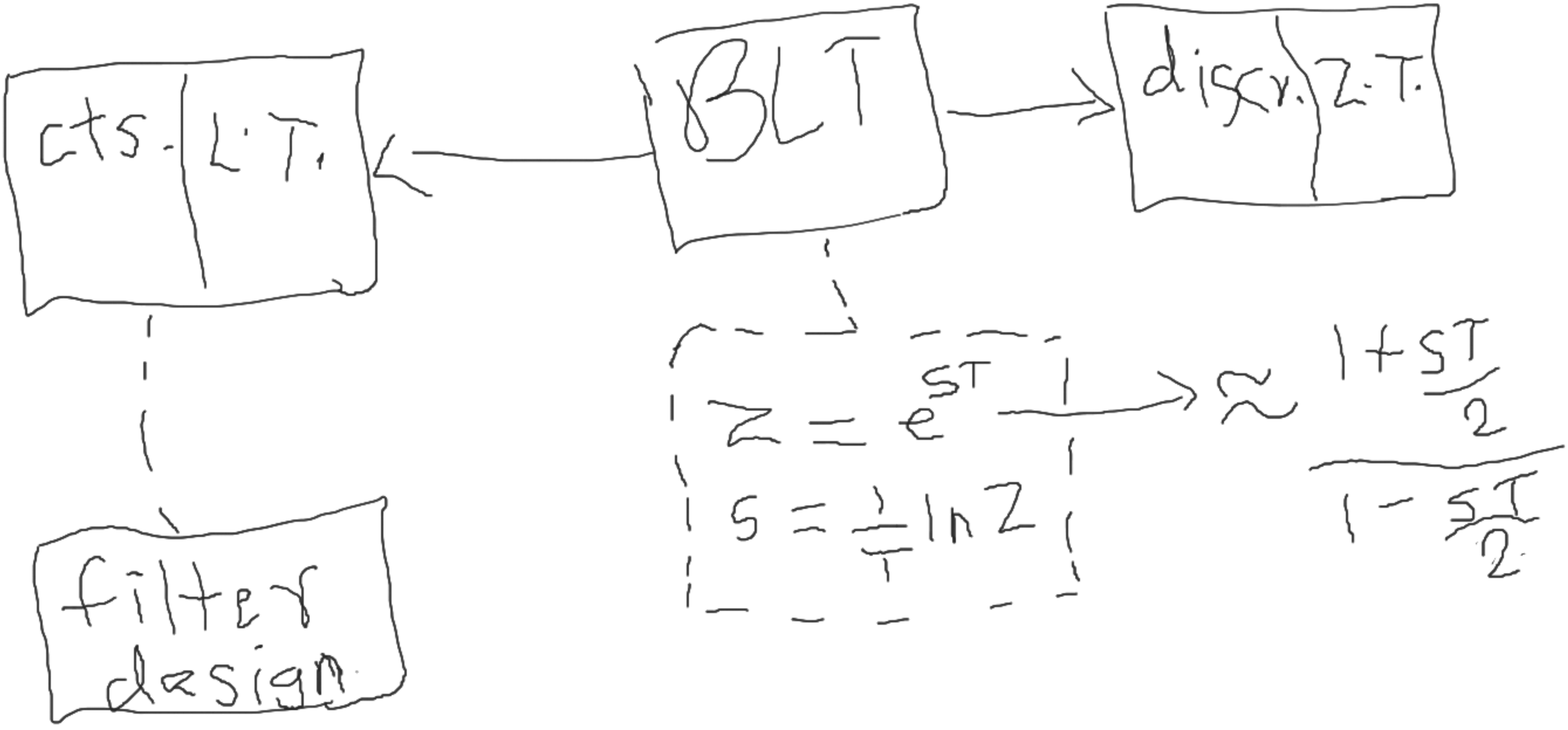
f_{0y} $x = x_y$



$(\approx x)$

triangular approx.^{n}
(interpol^{n})


Cts. aper.
CTFT
discr. aper.
DTFT
Samph. & P.E.
Cts. per.
CTFS
discr. per.
DTFS
dig.
DFT FFT


cts. L.T.
BLT
discr. L.T.
filter design
$z = e^{sT}$
$s = \frac{1}{T} \ln z$
$\approx \frac{1 + \frac{sT}{2}}{1 - \frac{sT}{2}}$
Cheb. / Butterw.