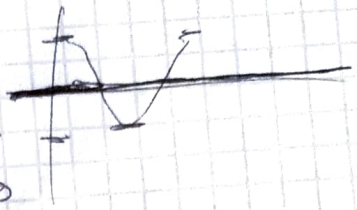
STEP 0

dato → round([0,1], <-dato)

chiave → round([0,1], <-chiave)

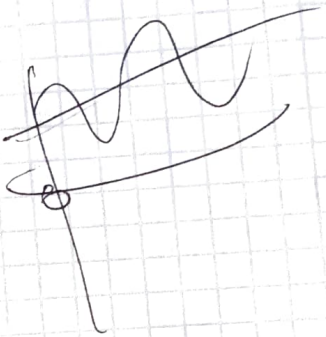


P_min-dato = x1 (T1=0)
P_max-dato = x2

segnale-dato(i) = { P_max se dato(i) = 1
                  { P_min se dato(i) = 0

se x1 = 0 => segnale-dato = P_max - dato

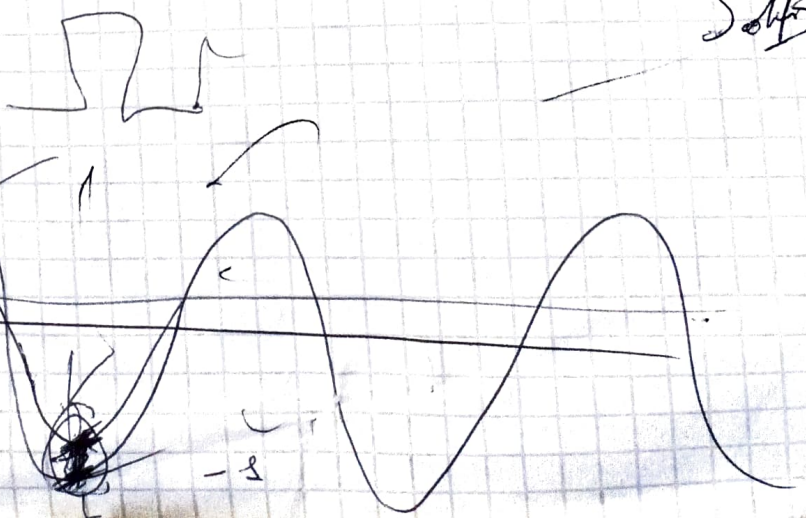
P_min-chiave = T1'
P_max-chiave = T2'



→ stesso codifica.

↳ segnale-chiave

segnale = segnale_dato + segnale_chiave



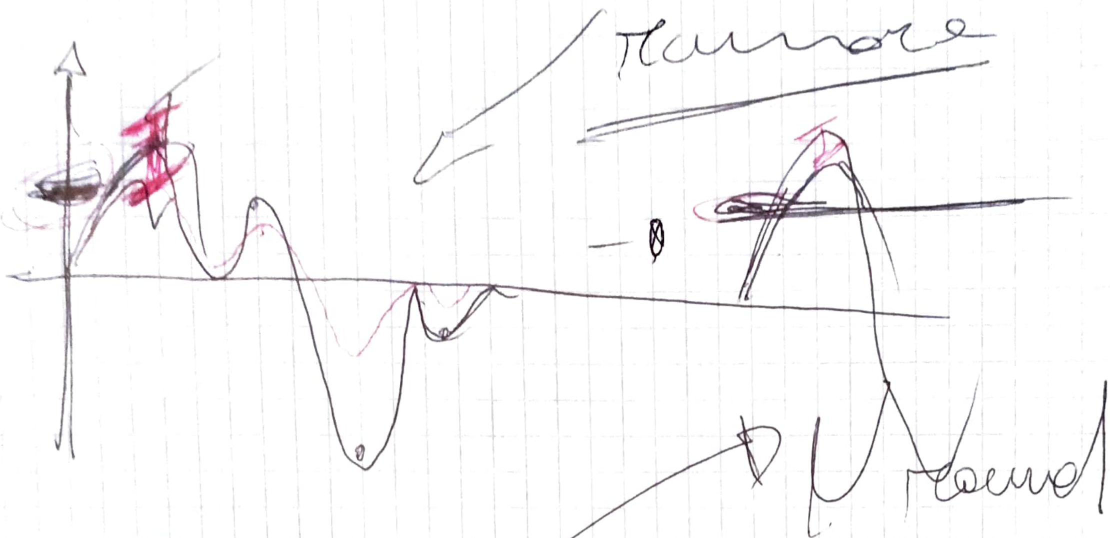
Rx -

x – Tx | x – Rx

y – Tx | y – Rx

z – Tx | z – Rx

distance



① Th = P_max_dato

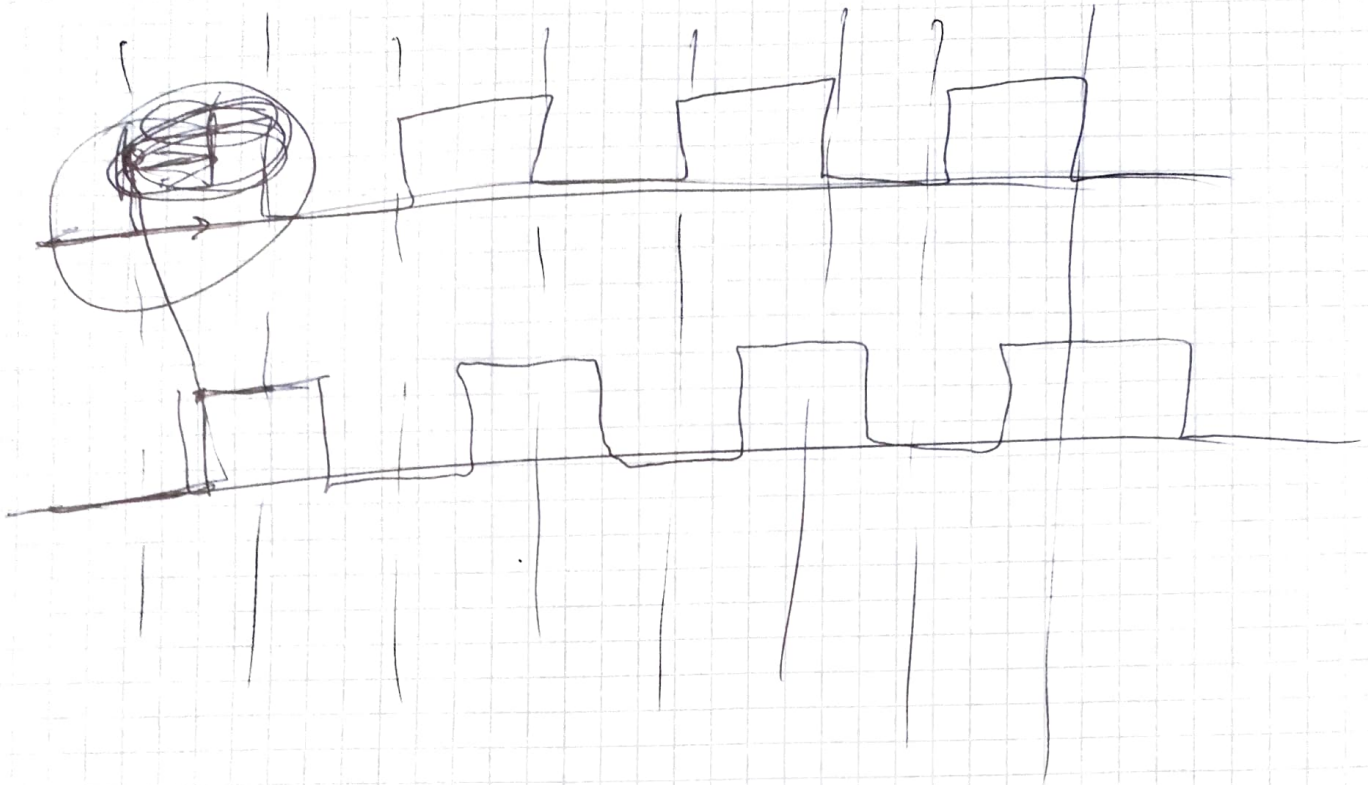
↳ dist max? → certo BER < X

X = [2%, ?% ...]

P(dato(1) + chiave(8)) ≤ Pmax Blth

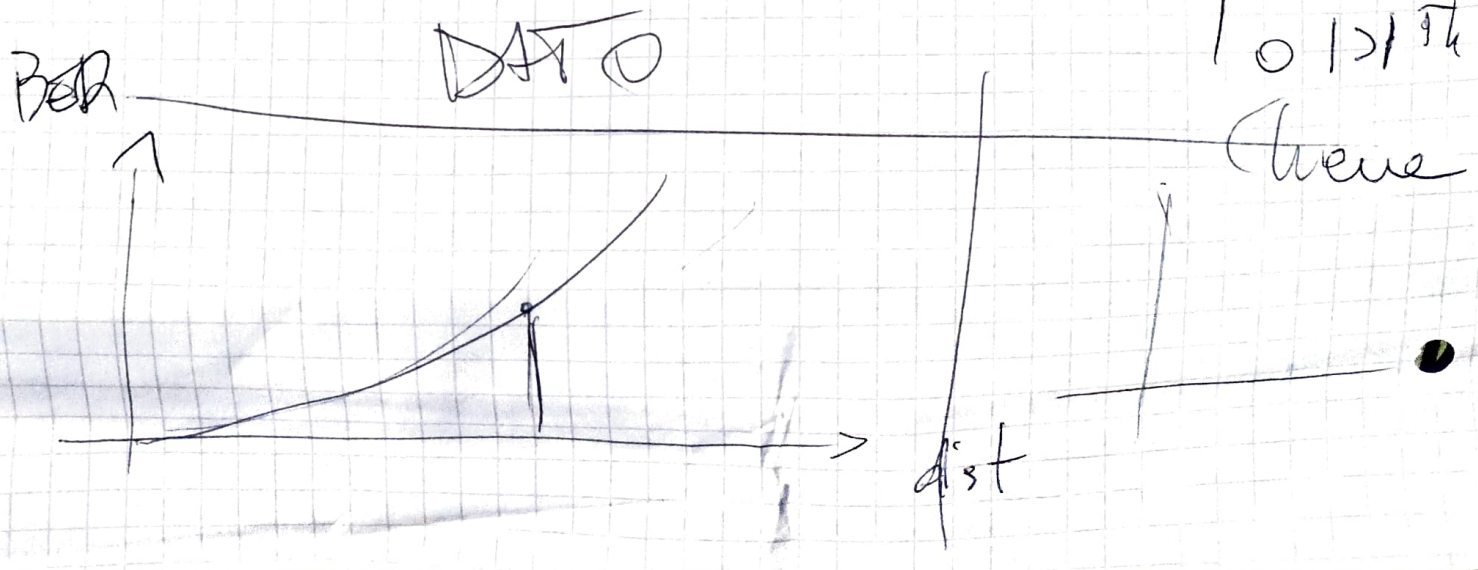
Pdato

Pk



$$received\_signal\_data(i) = \begin{cases} 1 & \text{if } received > center \\ 0 & \text{if } received < center \end{cases}$$

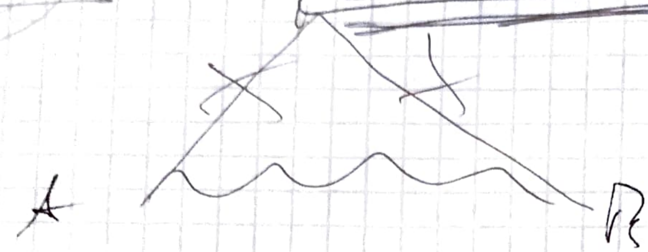
$$recived\_signal\_data = \begin{cases} \text{if } recived > center \begin{cases} 1 > th \\ 0 < th \end{cases} \\ \text{if } recived < center \begin{cases} 1 < th \\ 0 > th \end{cases} \end{cases}$$



Rumore

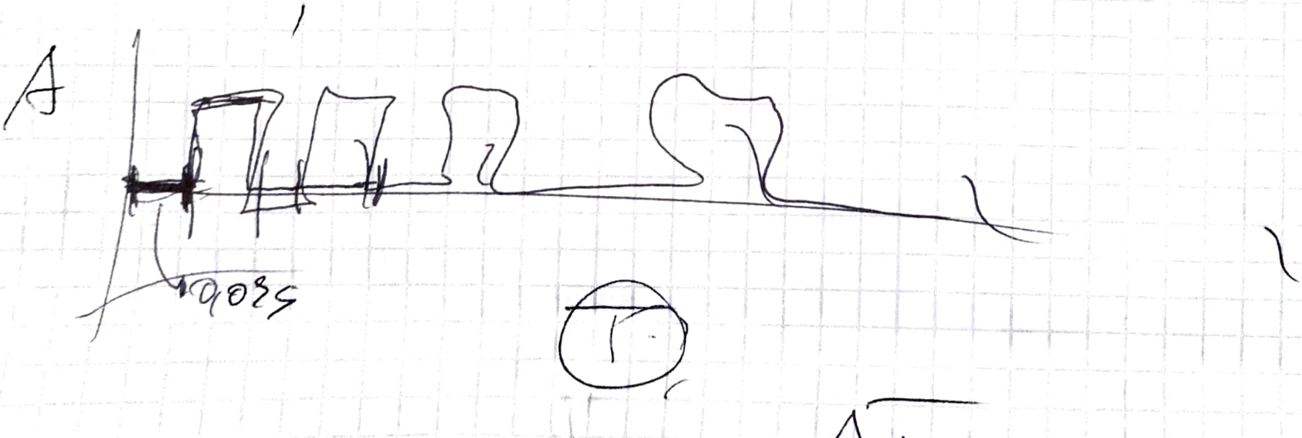
1 Canale

2 dati della demodulazione



SNR [- 20 dB , 28 dB]

segnale ricostruito = analogico sen 5 Hz



ΔT

H-I $x_0 = 0$, $x_1 = x_0 + \Delta T$

STUDIO Th. LEGIT

(1) inizio solo max actk → FA

th = [. . . .]

∀ distanze d

∀ th t

for i = 1 to N

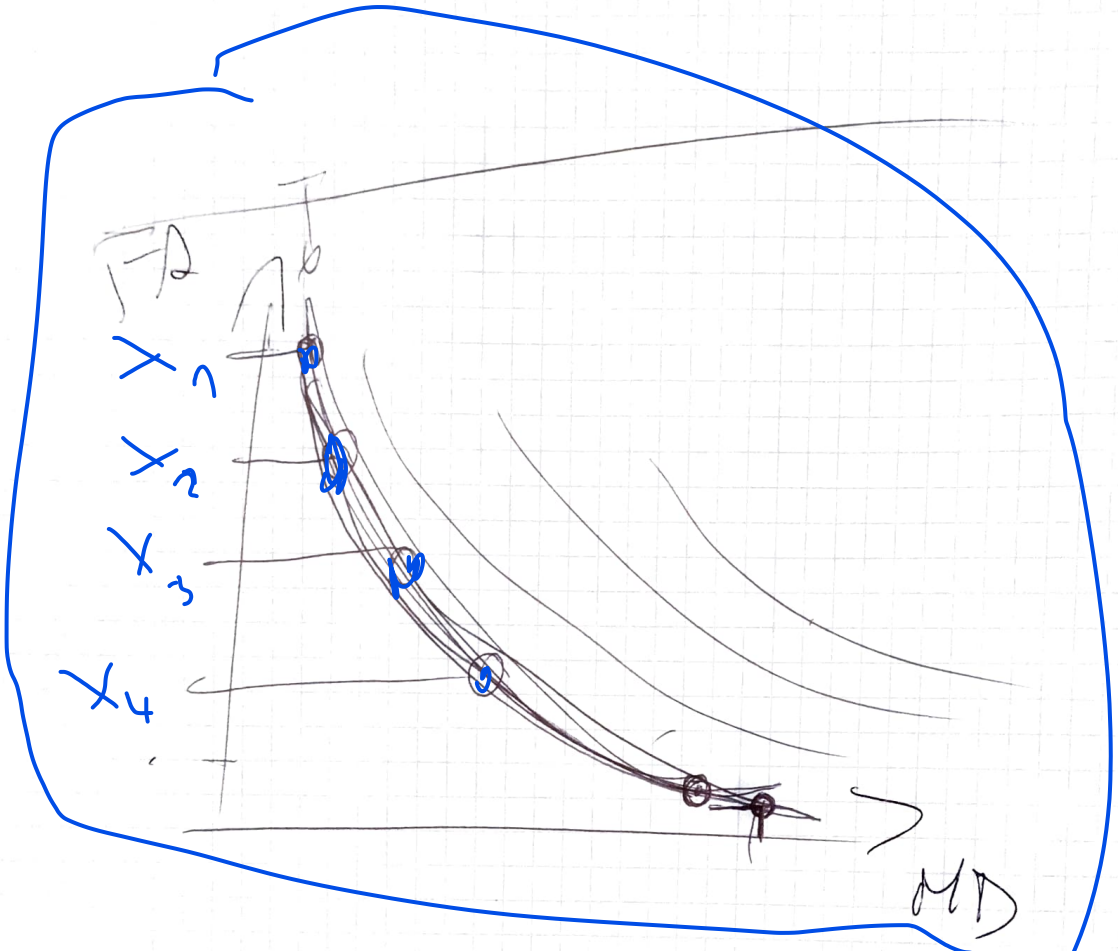
Studio

FA → (d, E)

(2) → MD

quando solo uno non auth.

Stesso di (2)



False Alarm = Numero di messaggi autentici interpretati come sbagliati sul numero totale di messaggi inviati

FA_prob = FA / 30; #assumendo che 30 siano le trasmissioni che noi abbiamo

Missed detection = Numero di messaggi non autentici interpretati come giusti

MD_prob = MD / 30; #assumendo che 30 siano le trasmissioni che noi abbiamo