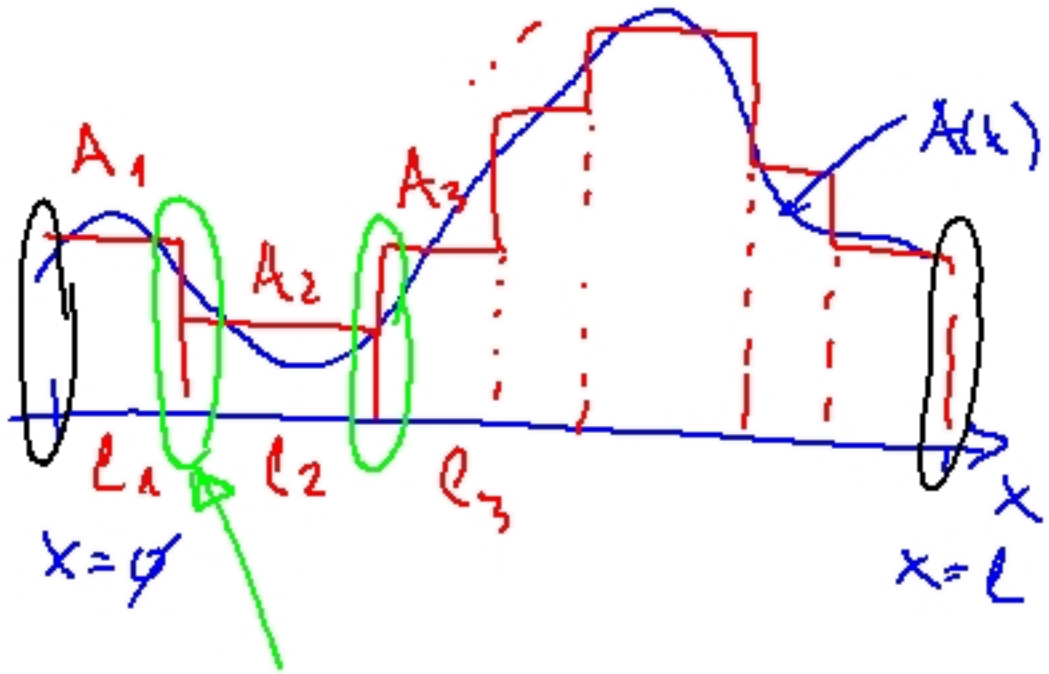
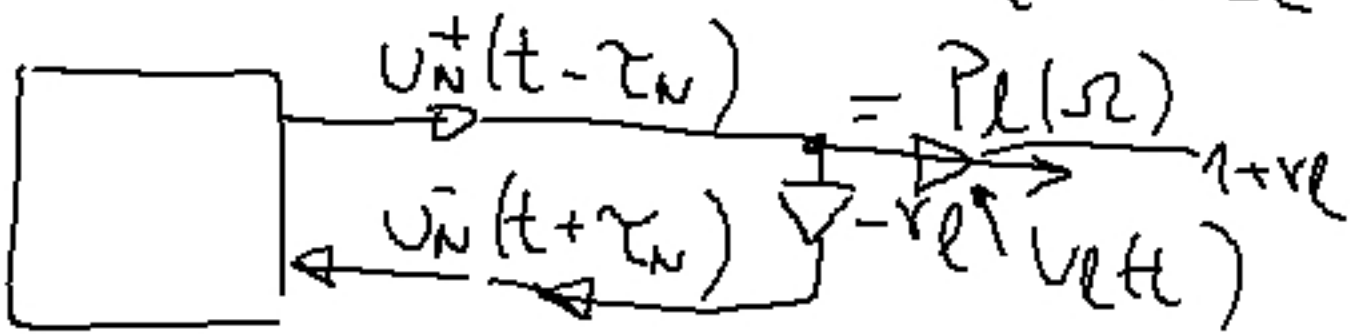
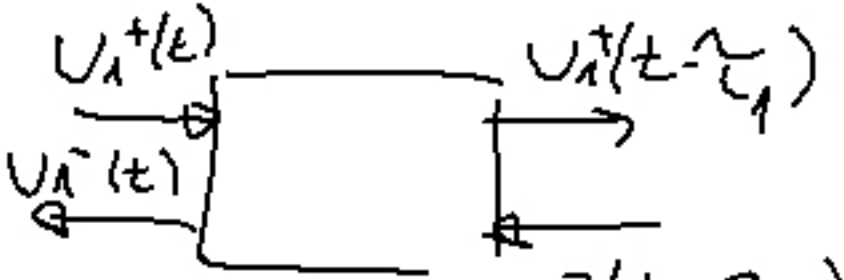


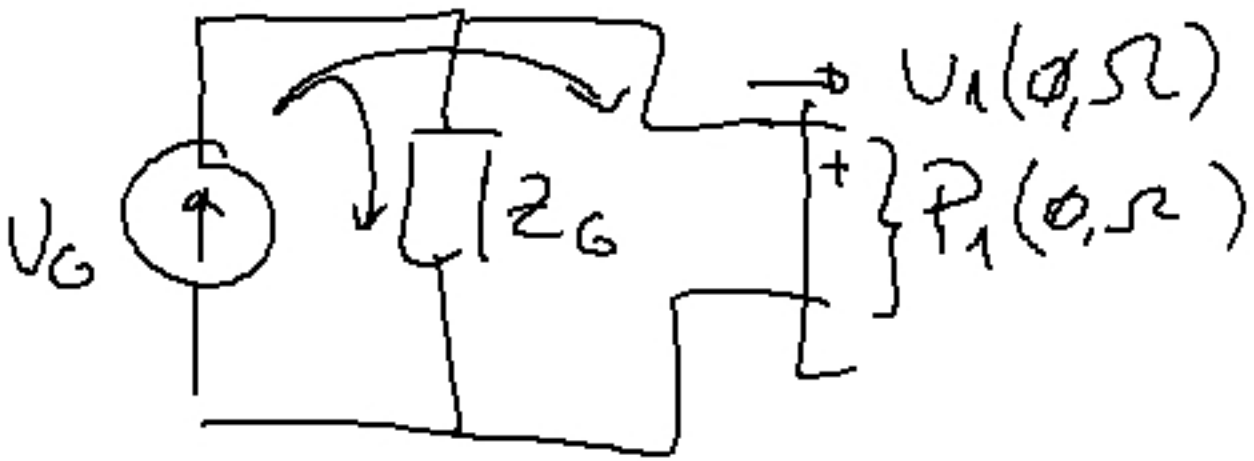
$$U_l(\Omega)\cdot Z_l =$$



$$\longrightarrow \quad u_l(t) = \underbrace{u_N^+(t-\tau_N) - u_N^-(t+\tau_N)}$$

$$\longrightarrow p_l(t) = \frac{\rho c}{A_N}\left(\text{—II—} + \text{—I—} \right)$$





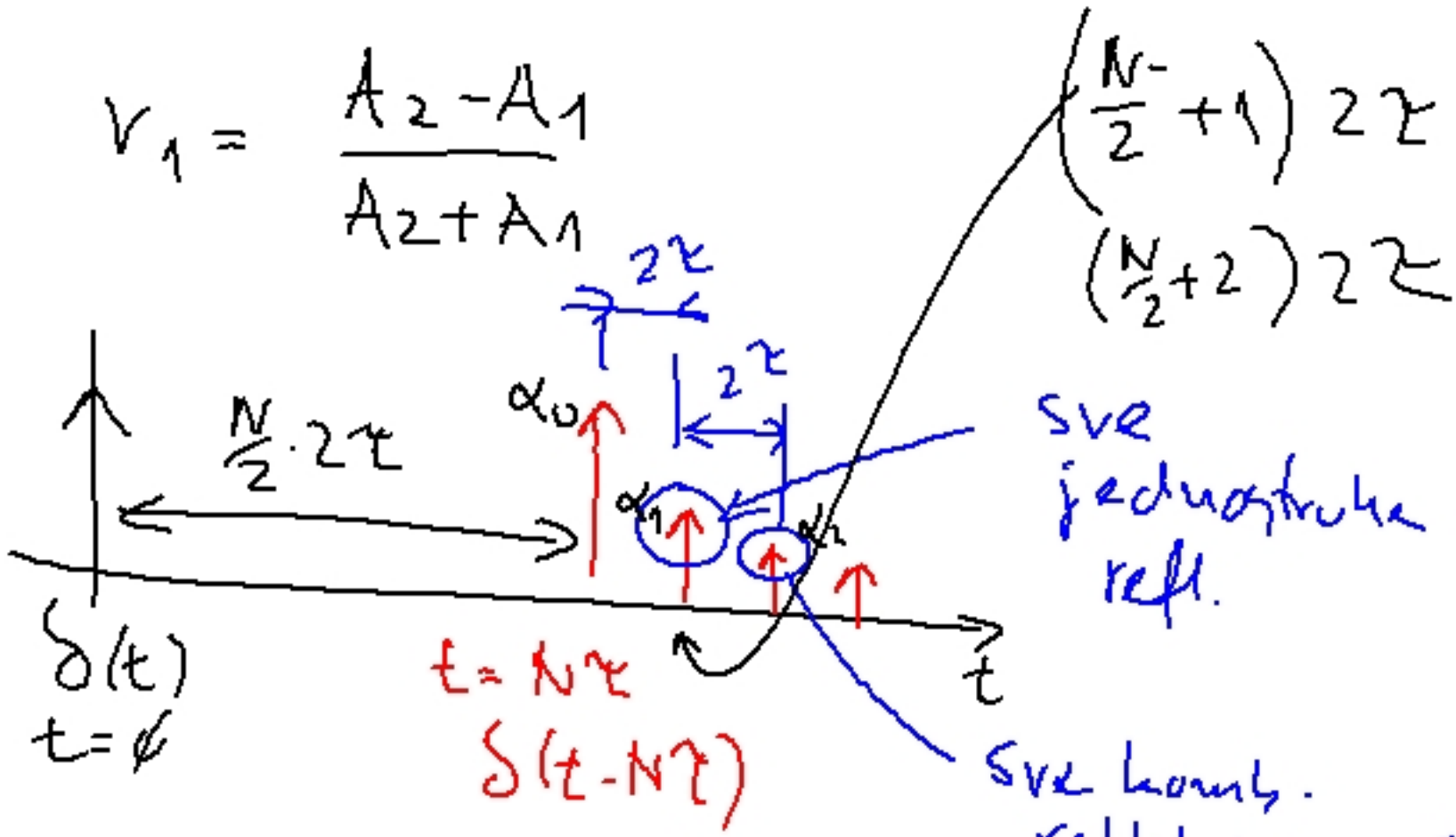
$$U_1(0,\Omega) = U_G(\Omega) - \frac{P_1(0,\Omega)}{Z_G}$$

Z_G ... real.

$$u_1(t,0) = u_1^+(t) - u_1^-(t)$$

$$p_1(t,0) = \frac{\beta_L}{A}\left(u_1^+(t) + u_1^-(t)\right)$$

$$r_1 = \frac{A_2 - A_1}{A_2 + A_1}$$



$$V_a(t) = \alpha_0 \delta(t - N\tau) + \sum_{k=1}^{\infty} \alpha_k \delta(t - N\tau - 2k\tau)$$

Odnos z i s

za trans. i impuls

$$z = e^{sT}$$

T ... period otipkavanja

$$\ln z = sT$$

$$s = \frac{1}{T} \ln z$$

$$e^{-s \cdot 2\pi k} = \left(e^{-sT}\right)^k = \left(z^{-1}\right)^k = z^{-k}$$

Odabiremo $T = 2\pi$

$$V_q(z) = V_a(s)\Big|_{z = e^{sT}} = \sum_{k=0}^{\infty} a_k \underbrace{e^{-sk \cdot 2\pi}}_{z^{-k}} = \underbrace{\sum_{k=0}^{\infty} a_k z^{-k}}_{\text{IIR sustav}}$$

ili $s = \frac{1}{T} \ln z$

$$\hat{V}(n) = V_a(n) = \alpha_0 \delta[n] + \alpha_1 \cdot \delta[n-1] + \alpha_2 \cdot \ldots \quad \infty$$

e^{-sNz} → kašnjenje $N \cdot z$ [s]

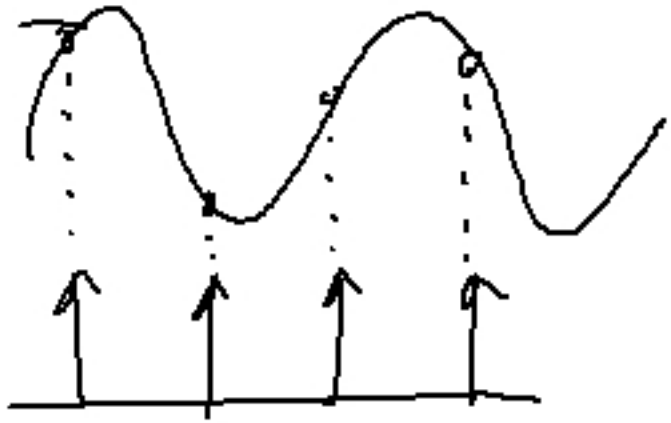
$T = \frac{1}{2}$

$$e^{-sN\cdot\frac{T}{2}} = \left(e^{-sT}\right)^{N/2} = \left| \rightarrow TJ10 \right| = \left(z^{-1}\right)^{N/2}$$

$$= z^{-N/2}$$

← kašnjenje za $N/2$ uz.

$x(t) = \sin(\omega t)$



$$y(t) = \sum_{k=-\infty}^{\infty} \delta(t - kT)$$

$$x^*(t) = x(t) \cdot y(t)$$

$$x^*(t) = \sum_{k=-\infty}^{+\infty} \sin(\omega \cdot kT) \cdot \delta(t - kT)$$

$$\mathcal{L}$$

$$X^*(j\Omega) \cdots$$