

$$\begin{pmatrix} g_{11} & g_{12} & g_{13} \\ g_{21} & g_{22} & g_{23} \end{pmatrix} \in \mathbb{F}(D)^3$$

$(u^{(1)} \ u^{(2)})$

$$v^{(1)} = u^{(1)} \cdot g_{11} + u^{(2)} \cdot g_{21}$$

$$\mathcal{C} = \langle g_1, g_2 \rangle ; K: \mathcal{M} \rightarrow \mathcal{M}G$$

Od K k matici G

- časová invariance

$$K(uD) = K(u)D$$

- linearita

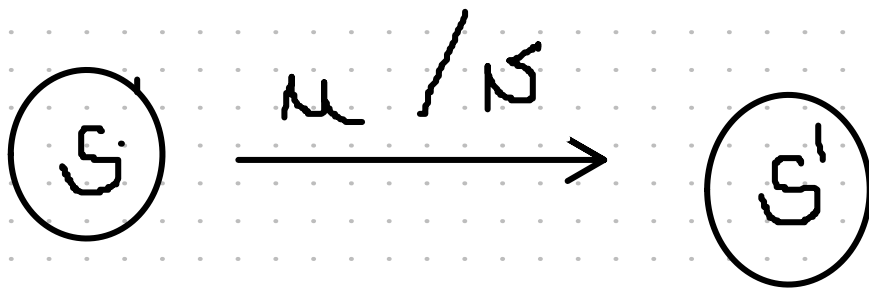
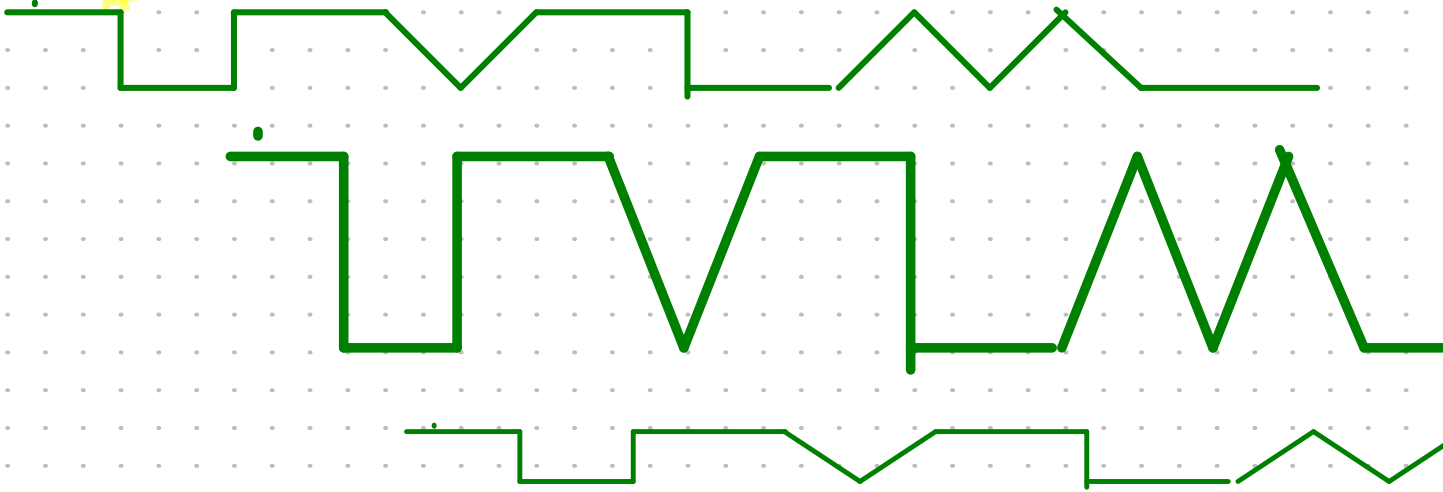
$$K(\alpha u + \beta v) = \alpha K(u) + \beta K(v)$$

LTI je jednoznačně určen odezvou

$$K(1) = 1 + 0 \cdot D + 0 \cdot D^2$$

$$K(a + bD + cD^2) =$$

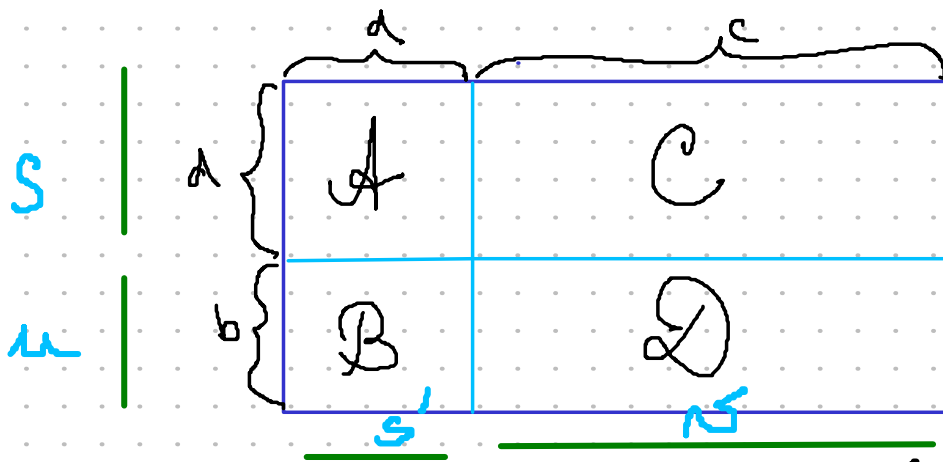
$$= a \cdot K(1) + b \cdot K(1)D + c \cdot K(1) \cdot D^2$$



$$K : \begin{aligned} \sigma &: (u, S) \mapsto S' \\ \lambda &: (u, S) \mapsto v \end{aligned}$$

$$s \in S = \mathbb{F}^d \quad \text{stupeň kódovače}$$

$$K = (\sigma, \lambda) : S \times \mathbb{F}^b \longrightarrow S \times \mathbb{F}^c$$



$$s_{i+1} = s_i A + u_i B \quad | \quad s D^{-1} = s A + u B$$

$$u_i = s_i C + u_i D \quad | \quad u = s C + u D$$

?: ~~$s D$~~
 $s D^{-1} \checkmark$

$$(s_i A + u_i B) D^{-1} = s_{i+1} D^{-1}$$

$$u = u (D + B (D^{-1} I_a - A) C)$$