

$$B_i^3(t) \quad i=0, \dots, 3$$

$$c(t) = \sum_{i=0}^3 P_i B_i^3(t)$$

$$P_0 = f_0$$

$$3(P_1 - P_0) = f_1$$

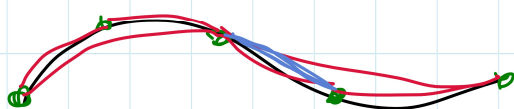
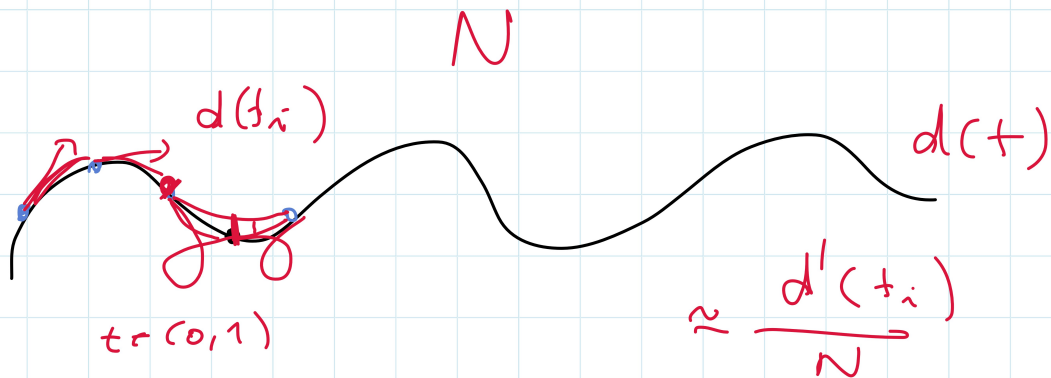
$$P_3 = f_2$$

$$3(P_3 - P_2) = f_3$$

$$\begin{pmatrix} 1 & 0 & 0 & 0 \\ -3 & 3 & 0 & 0 \\ 0 & 0 & 0 & 1 \\ 0 & 0 & -3 & 3 \end{pmatrix} \begin{pmatrix} P_0 \\ P_1 \\ P_2 \\ P_3 \end{pmatrix} = \begin{pmatrix} f_0 \\ f_1 \\ f_2 \\ f_3 \end{pmatrix}$$

Analytichó' aproximace

$$\|e'(0)\| \approx \|e'(1)\| \approx \|c(1) - e(0)\|$$



$$[\text{id}]_{\mathcal{U}}^{\mathcal{B}} = \left( \begin{array}{c|c|c} [\mathcal{B}_0^{\mathcal{A}}]_{\mathcal{U}} & | & | \\ \hline & & \end{array} \right)$$

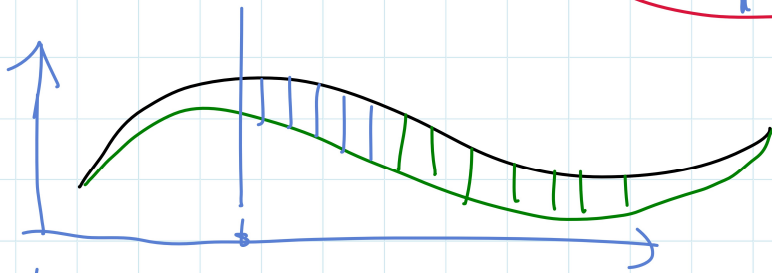
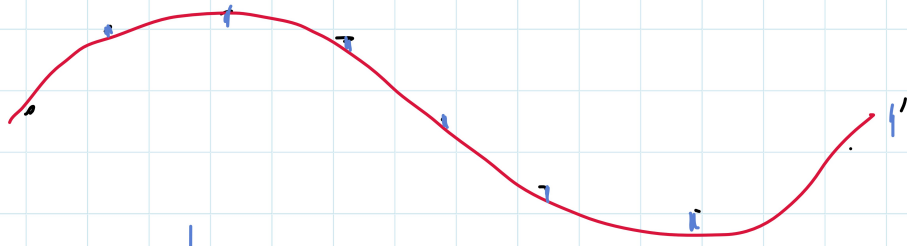
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$$(M_1) [c]_{\mathcal{U}} = (f)$$

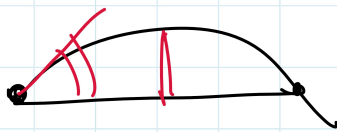
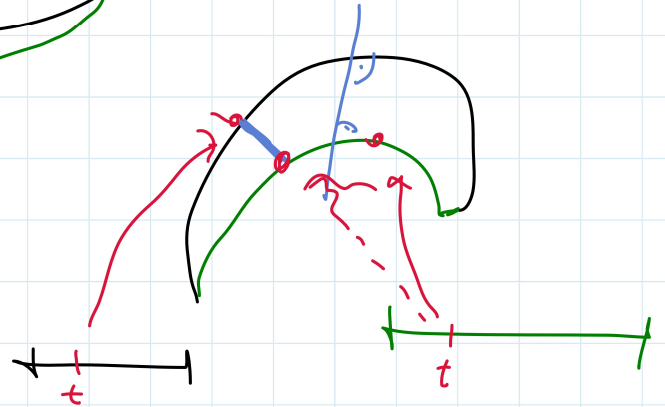
$$(M_2) [c]_{\mathcal{B}} = (f)$$

$$[c]_{\mathcal{U}} = \underbrace{M_1^{-1} \cdot M_2}_{[\text{id}]_{\mathcal{U}}^{\mathcal{B}}} \cdot [c]_{\mathcal{B}}$$

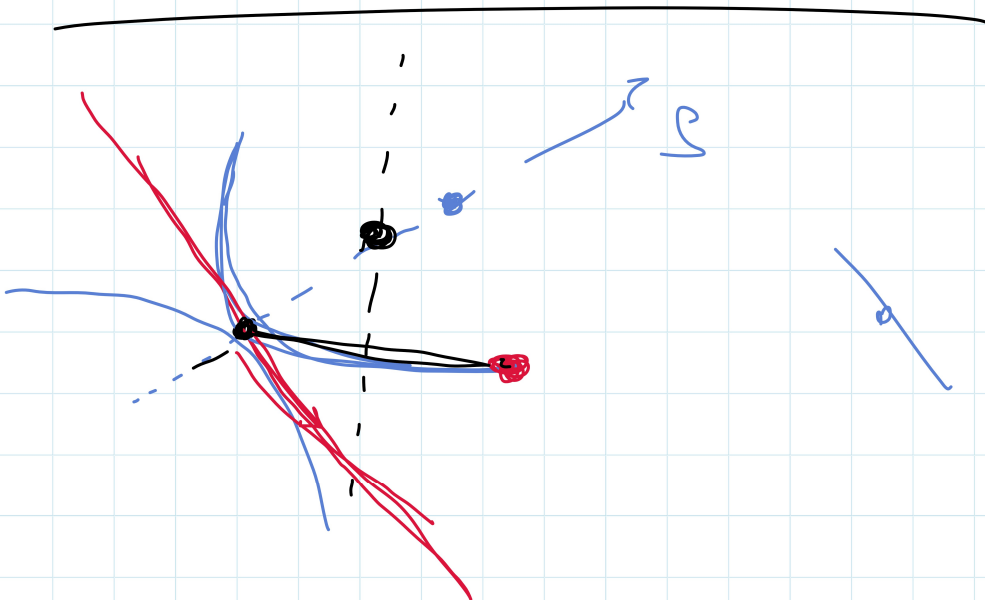
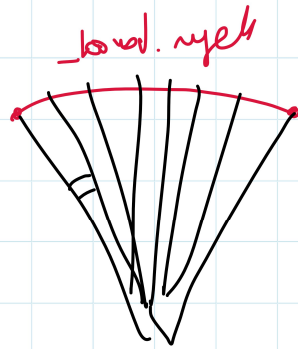
$$M_1 = M_2 \cdot ([\text{id}]_{\mathcal{U}}^{\mathcal{B}})^{-1}$$

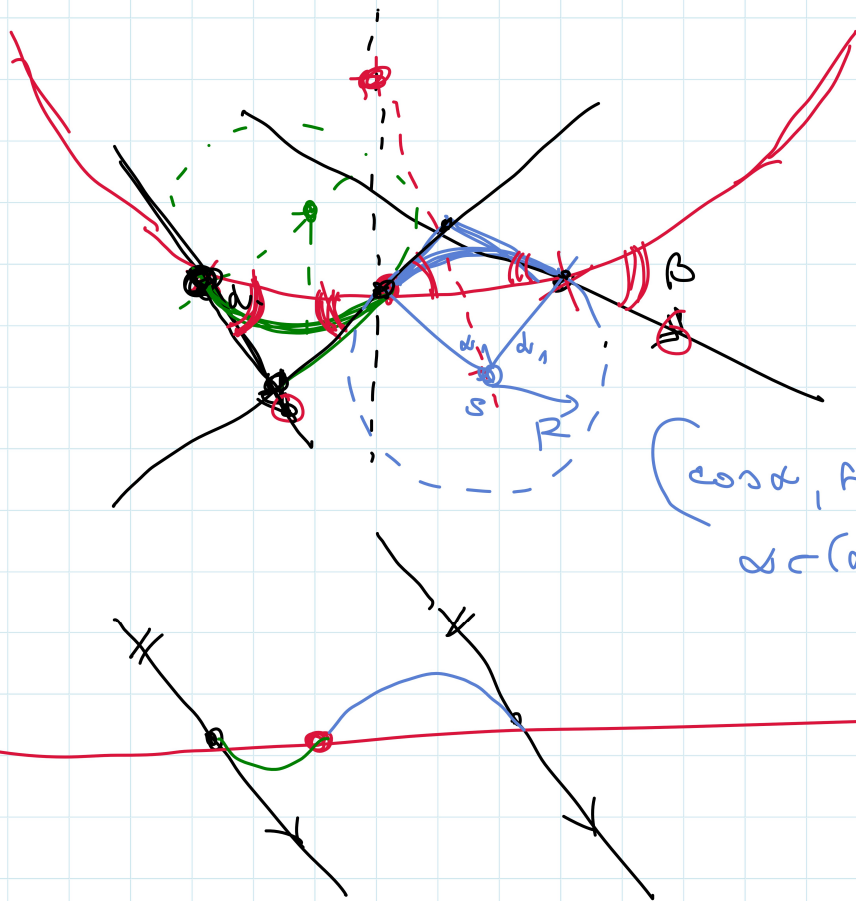


$$\max_{t \in [0, 1]} \|c_1(t) - c_2(t)\|$$



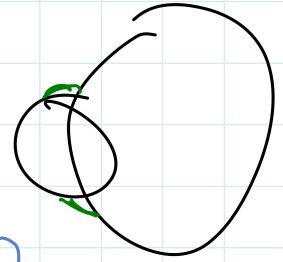
$$\int_{t_0}^{t_{\text{res}}} \|c'(t)\| dt$$





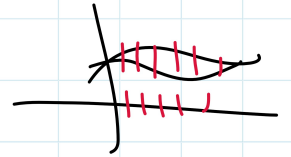
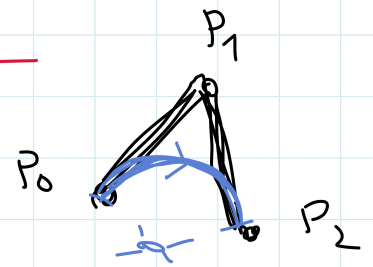
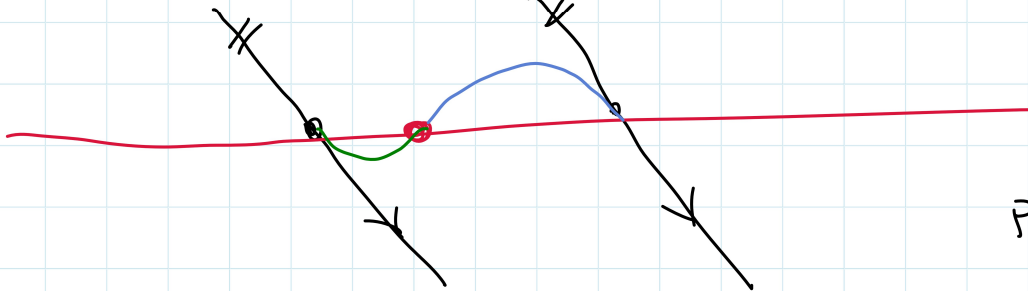
$$d = \beta$$

$$d \neq \beta$$

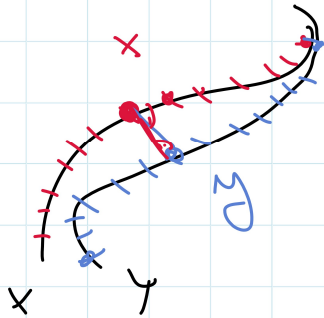


$$\cos \alpha, \sin \alpha$$

$$d \in (d_1, d_2)$$

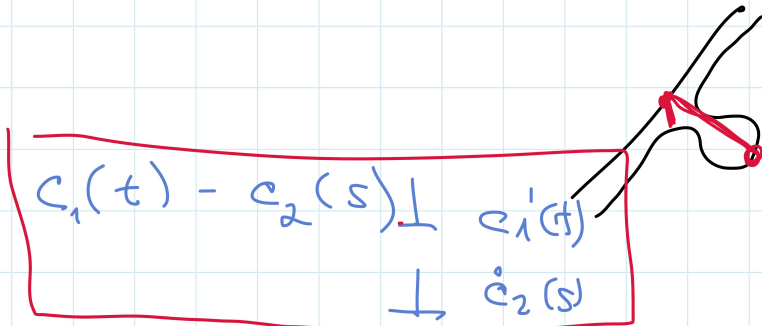


Housd. vord Christ



$$\max_{x \in X} \min_{y \in Y} \|x - y\|$$

vord. x ed y



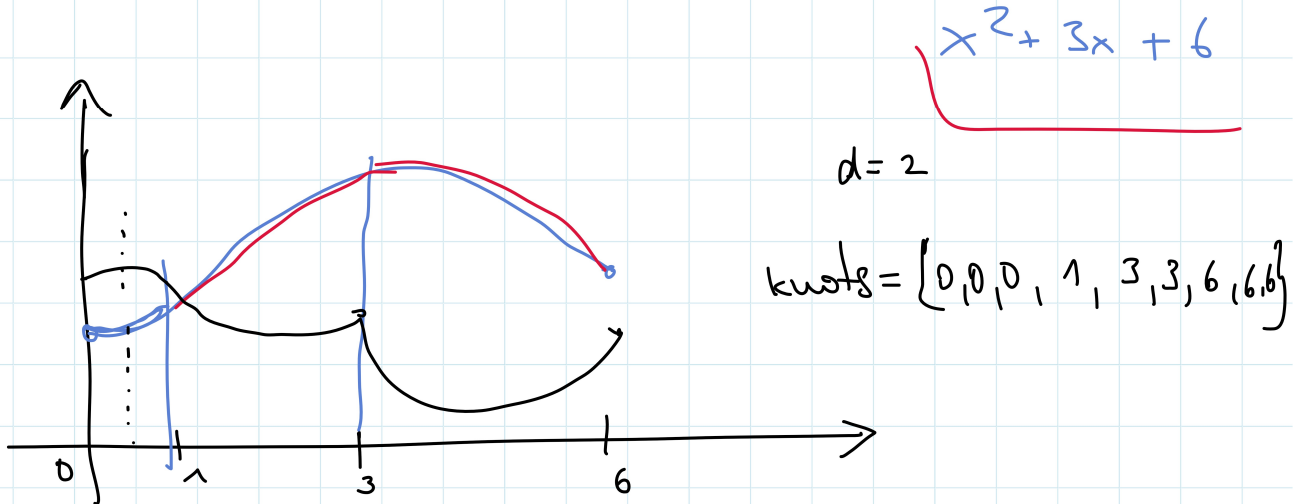
6  
6

$$c_1(t) - c_2(s) \perp c_1'(t)$$

$$\perp c_2'(s)$$



# B-splajn funkcije



$$f(x) = \begin{cases} x \in [0, 1) \\ x \in [1, 3) \\ x \in [3, 6] \end{cases}$$

$$f_1(x) = a_1 + b_1x + c_1x^2$$

$$f_2(x) = a_2 + b_2x + c_2x^2$$

$$f_3(x) = a_3 + b_3x + c_3x^2$$

$$\rightarrow f_1(1) = f_2(1)$$

$$\rightarrow f_1'(1) = f_2'(1)$$

$$f_2(3) = f_3(3)$$

$N_i^2(x)$