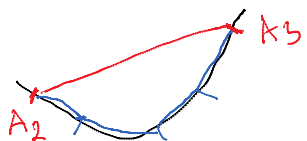


$$P: a = t_0 < t_1 < \dots < t_k = b$$

$r_p$  poligonalna linija

$$l(r_p) = \sum_{j=1}^k \|\vec{r}(t_j) - \vec{r}(t_{j-1})\|$$



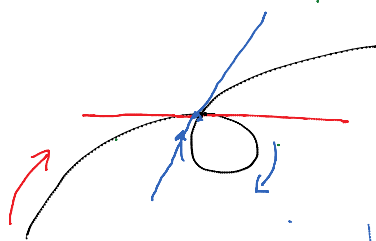
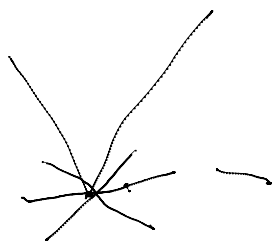
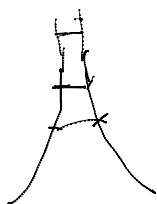
$P'$ : još sitnija

$$a = t_0 < t_1 < \dots < t_u = b$$

$$u > k$$

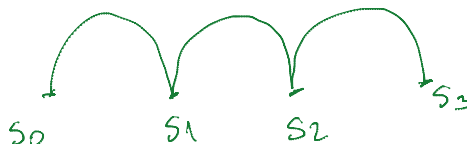
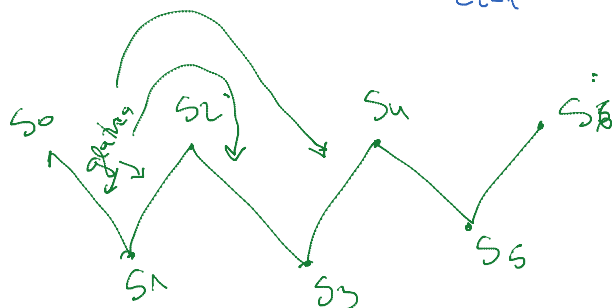
$r_{p'}$  (finija)

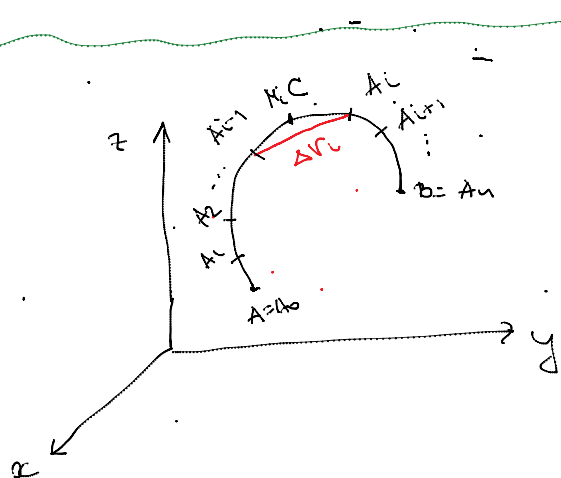
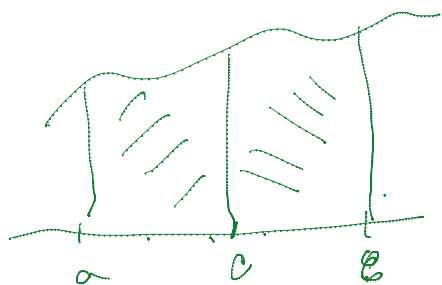
$$l(r_p) \leq l(r_{p'})$$



$$\frac{x_1(t_{i-1} + h) - x_1(t_{i-1})}{h}$$

$$h = t_i - t_{i-1}$$





$\vec{r} = (x, y, z)$   
 $\vec{F} = P(x, y, z) \cdot \vec{i} + Q(x, y, z) \cdot \vec{j} + R(x, y, z) \cdot \vec{k}$

$\widehat{A_{i-1} A_i}$   
 $M_i = \vec{r}(\tau_i)$   
 $M_i = (x(\tau_i), y(\tau_i), z(\tau_i))$   
 $A_{i-1} = \vec{r}(t_{i-1})$   
 $t_{i-1} < \tau_i < t_i$   
 $A_i = \vec{r}(t_i)$

$F_i = P(M_i) \cdot \vec{i} + Q(M_i) \cdot \vec{j} + R(M_i) \cdot \vec{k}$   
 $= P(x(\tau_i), y(\tau_i), z(\tau_i)) \cdot \vec{i} + Q(x(\tau_i), y(\tau_i), z(\tau_i)) \cdot \vec{j} + R(x(\tau_i), y(\tau_i), z(\tau_i)) \cdot \vec{k}$

rad  $\widehat{A_{i-1} A_i}$

$W = \vec{F}_i \cdot \Delta \vec{r}_i = F_i (\Delta x_i \cdot \vec{i} + \Delta y_i \cdot \vec{j} + \Delta z_i \cdot \vec{k})$

$\Delta x_i = x_i - x_{i-1}, \Delta y_i = y_i - y_{i-1}, \Delta z_i = z_i - z_{i-1}$

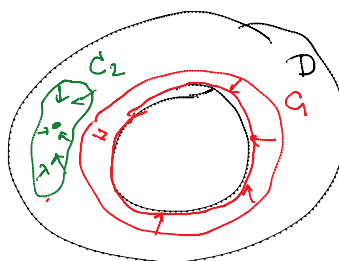
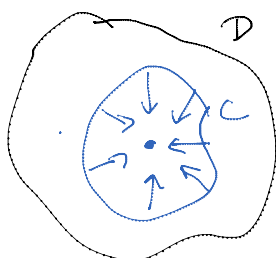
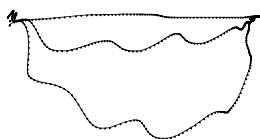
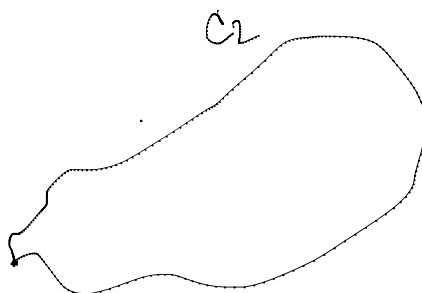
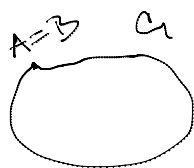
rad  $\widehat{AB}$

$\sum_{i=1}^n \vec{F}_i \cdot \Delta \vec{r}_i = [P(M_i) \cdot \vec{i} + Q(M_i) \cdot \vec{j} + R(M_i) \cdot \vec{k}] \cdot (\Delta x_i \cdot \vec{i} + \Delta y_i \cdot \vec{j} + \Delta z_i \cdot \vec{k})$

OPSTI

lim  $\int_C \vec{F} \cdot d\vec{r} =$  KRIVOUIN. II vrste

$\left. \begin{matrix} \Delta x_i \rightarrow 0 \\ \Delta y_i \rightarrow 0 \\ \Delta z_i \rightarrow 0 \end{matrix} \right\} n \rightarrow \infty$



$$a_n \leq b_n$$

$$b_n = \underline{a_n} + c_n \quad \checkmark$$

$$\underbrace{\sum b_n}_\neq = \underbrace{\sum a_n}_\neq + \sum c_n$$

$$\sum b_n = \sum (a_n + c_n)$$

It -da ako (K)

$$\sum a_n + \sum c_n$$