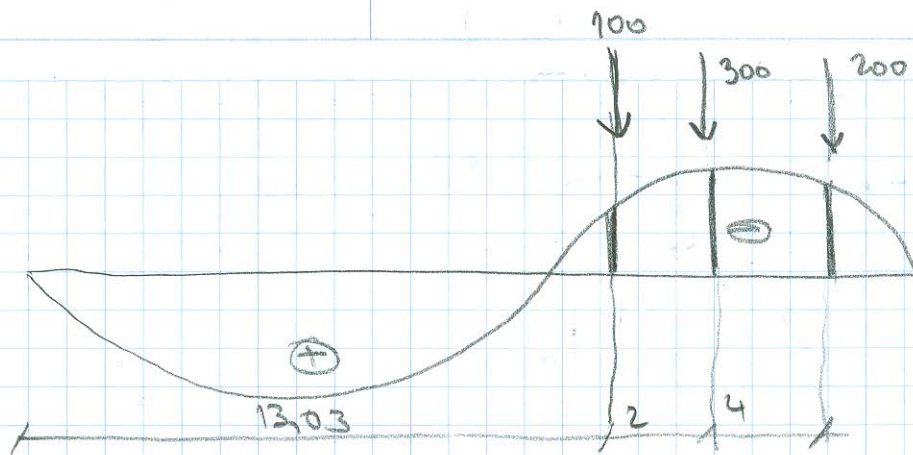


$$\zeta_2 = 0,6575$$

$$u_1 = \zeta \cdot 20 = 13,03$$



$$Z(s, u_1) = \frac{20 - 13,03}{2} \left(\frac{13,03}{20} \right)^2 \left(3 - 5 \cdot \frac{13,03}{20} \right) = -0,381$$

$$u_1 = 13,03$$

$$Z(s, u_2) = \frac{20 - 15,03}{2} \left(\frac{15,03}{20} \right)^2 \left(3 - 5 \cdot \frac{15,03}{20} \right) = -1,063$$

$$u_2 = 13,03 + 2 = 15,03$$

$$Z(s, u_3) = \frac{20 - 19,03}{2} \left(\frac{19,03}{20} \right)^2 \left(3 - 5 \cdot \frac{19,03}{20} \right) = -0,772$$

$$u_3 = 13,03 + 6 = 19,03$$

$$\min Z_s = \sum_{u=1}^3 P_u Z(s, u_u) = 100 \cdot (-0,381) + 300 \cdot (-1,063) + 200 \cdot (-0,772) = -511,4$$

3) KRITERIJUM ZA OPASAN POLOŽAJ

↑ zašto ide na ⊕ des

$$Z'(s, u_1) = Z'(s, u_2)$$

$$\zeta_1 = \zeta \quad \zeta_2 = \zeta + \frac{4}{20} = \zeta + \frac{1}{5}$$

$$\frac{m = 20 \text{ kNm/m}}{15,03 - 11,03} \quad \min Z_s$$

$$10\zeta^3 - 12\zeta^2 + 3\zeta = 10 \cdot \left(\zeta + \frac{1}{5} \right)^3 - 12 \left(\zeta + \frac{1}{5} \right)^2 + 3 \cdot \left(\zeta + \frac{1}{5} \right)$$

$$6\zeta^2 - 3,6\zeta + 0,2 = 0$$

$$\boxed{\zeta_1 = 0,062} \quad \zeta_2 = 0,262$$

$$\zeta \in [0, 0,355]$$

