

# 4.1. BERZERONOVA

DIREKTNÁ I INVERZNÁ K-

$$t=0, t=T, t=2T, t=3T$$

$$U_0 = 400 \text{ kV}$$

$$Z_1 = 400 \Omega$$

$$Z_2 = 40 \Omega$$

$$Z_3 = 200 \Omega$$

$$C_k = 300 \text{ nF}$$

$$V_k = 100 \text{ m/s}$$

OPISUJE REŽIM V POJEDINÝCH TRENUCÍCH; MĚSTIMĚ  
NA VODU

$$T = \frac{C_k}{V_k} = \frac{300 \text{ nF}}{100 \text{ m/s}} = 2 \mu\text{s}$$

$$U + Z_1 i = 2 U_0 \quad \text{KA, kV}$$

$$U + 400 i = 800 \cdot 10^3$$

$$\text{za } U=0, I = 2 \cdot 10^3 \text{ [2,0]}$$

$$\text{za } i = 1,5 \text{ kA } U = 200 \text{ kV [1,5; 200]}$$

INVERZNÁ ZA ② *práva ②*

$$U - Z_2 i = 0 \text{ [0,0]}$$

$$U - 40 i = 0 \text{ [2,80]}$$

RADNÁ TAČKA

$$I \text{ (1,82; 72,8)}$$

DIREKTNÁ ZA ② → TAČKA B

$$U + Z_2 i = 2 U_{d1}$$

$$72,8 + 40 \cdot 1,82 = 2 U_{d1} \Rightarrow 2 U_{d1} = 145,6$$

$$U_{d1} = U_{d1B} = \alpha_A \cdot U_0 = \frac{2 \cdot Z_2}{Z_1 + Z_2} U_0$$

$$= \frac{2 \cdot 40}{400 + 40} \cdot 400 = 72,73 \text{ kV}$$

$$U + 40 i = 145,6$$

$$[0; 145,6]$$

$$[1,82; 200]$$

