VAJA 6 – LOČNI PRESEK
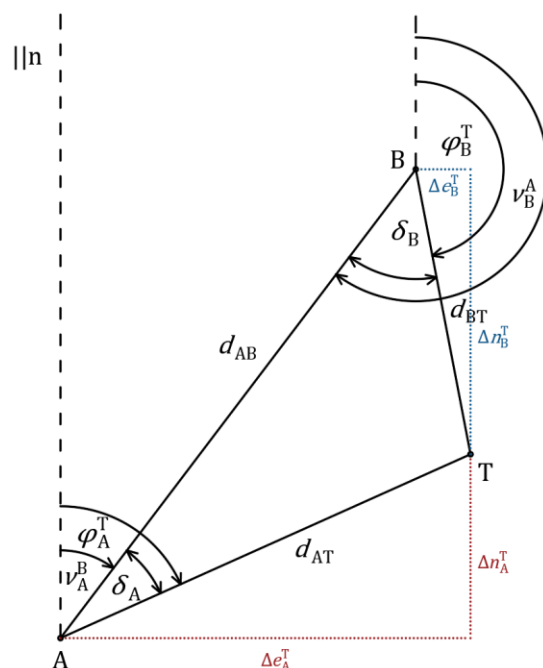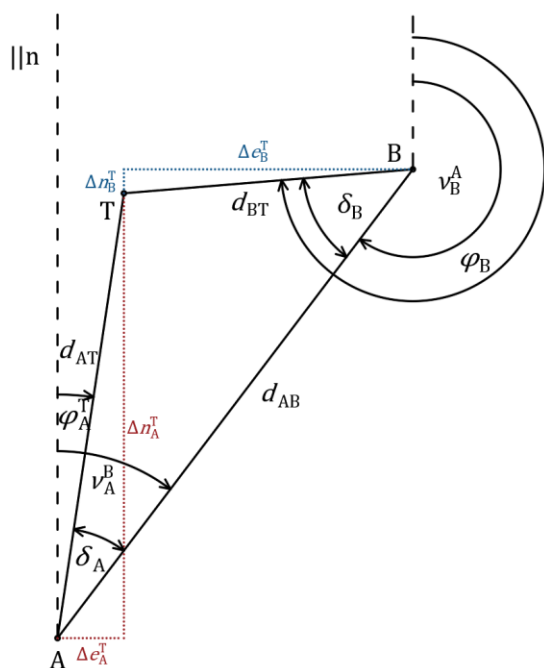
LOČNI PRESEK

<u>dano</u>: $A(e_A, n_A), B(e_B, n_B)$
<u>merjeno</u>: d_{AT}, d_{BT}
<u>iščemo</u>: $T(e_T, n_T)$

i) **Izračun kotov δ_A in δ_B:**

$$\delta_A = \arccos \frac{d_{AB}^2 + d_{AT}^2 - d_{BT}^2}{2\, d_{AB}\, d_{AT}}$$

$$\delta_B = \arccos \frac{d_{AB}^2 + d_{BT}^2 - d_{AT}^2}{2\, d_{AB}\, d_{BT}}$$

Kontrola:

$$d_{AB} = d_{AT} \cos \alpha + d_{BT} \cos \beta$$

ii) **Izračun orientiranih smeri:**

Če nova točka T leži levo glede na zveznico AB (skica levo):

$$\varphi_A^T = \nu_A^B - \delta_A \ (+360°)$$

$$\varphi_B^T = \nu_B^A + \delta_B \ (-360°)$$

Če nova točka T leži desno glede na zveznico AB (skica desno):

$$\varphi_A^T = \nu_A^B + \delta_A \ (-360°)$$

$$\varphi_B^T = \nu_B^A - \delta_B \ (+360°)$$

iii) **Izračun koordinat točke *T*:**

$$\Delta e_A^T = d_{AT} \sin \varphi_A^T \qquad\qquad \Delta e_B^T = d_{BT} \sin \varphi_B^T$$

$$\Delta n_A^T = d_{AT} \cos \varphi_A^T \qquad\qquad \Delta n_B^T = d_{BT} \cos \varphi_B^T$$

$$e_T' = e_A + \Delta e_A^T \qquad\qquad e_T'' = e_B + \Delta e_B^T$$

$$n_T' = n_A + \Delta n_A^T \qquad\qquad n_T'' = n_B + \Delta n_B^T$$

Kontrola:

$$e_T' = e_T'' \qquad\qquad n_T' = n_T''$$