

$$\left\{ \begin{array}{l} G_{0/B} \\ A \end{array} \right\} = \left\{ \begin{array}{l} 0 \\ Y_B \\ 0 \end{array} \middle| \begin{array}{l} \vec{\Pi}_B + A \vec{B}_A \\ \vec{B}_{0A} \end{array} \right\}$$

$$= \left\{ \begin{array}{l} 0 \\ Y_B \\ 0 \end{array} \middle| \begin{array}{l} (3,3) \\ 0 \\ 0 \end{array} \begin{array}{l} (0) \\ Y_B \\ (0) \end{array} \right\} = \left\{ \begin{array}{l} 0 \\ Y_B \\ 0 \end{array} \middle| \begin{array}{l} 0 \\ 0 \\ 3,3 Y_B \end{array} \right\}$$

$$\left\{ \begin{array}{l} G_{P_0/1} \\ A \end{array} \right\} = \left\{ \begin{array}{l} \vec{P} \\ \vec{\Pi}_G + A \vec{G}_A \end{array} \right\} = \left\{ \begin{array}{l} P_{\text{sin} \alpha} \\ -P_{\text{cos} \alpha} \\ 0 \end{array} \middle| \begin{array}{l} (2) \\ (0, y_A) \\ (0) \end{array} \begin{array}{l} (P_{\text{sin} \alpha}) \\ (-P_{\text{cos} \alpha}) \\ 0 \end{array} \right\}$$

$$= \left\{ \begin{array}{l} P_{\text{sin} \alpha} \\ -P_{\text{cos} \alpha} \\ 0 \end{array} \middle| \begin{array}{l} 0 \\ 0 \\ -2P_{\text{cos} \alpha} - 0,9 P_{\text{sin} \alpha} \end{array} \right\}$$

$$A \left\{ \begin{array}{c|c} X_A & 0 \\ \hline Y_A & 0 \\ \hline 0 & 0 \end{array} \right\} + A \left\{ \begin{array}{c|c} 0 & 0 \\ \hline Y_B & 3,3Y_B \\ \hline 0 & 3,3Y_B \end{array} \right\} + A \left\{ \begin{array}{c|c} P \sin \alpha & 0 \\ \hline -P \cos \alpha & 0 \\ \hline 0 & -P(2 \cos \alpha + 0,9 \sin \alpha) \end{array} \right\} = \left\{ \begin{array}{c|c} 0 & 0 \\ \hline 0 & 0 \\ \hline 0 & 0 \end{array} \right\}$$

$$\left\{ \begin{array}{l} X_A + P \sin \alpha = 0 \\ Y_A + Y_B - P \cos \alpha = 0 \\ 3,3Y_B - P(2 \cos \alpha + 0,9 \sin \alpha) = 0 = P \times N \end{array} \right. \quad \begin{array}{l} X_A = P \times L \\ Y_B = P \times N \\ Y_A = P \cos \alpha - P \times N \end{array}$$

$$X_A = -P \sin \alpha = -30000 \times \sin 11,3 = -5878$$

$$Y_B = \frac{30000(2 \cos 11,3 + 0,9 \sin 11,3)}{3,3} = 19432$$

$$Y_A = -19432 + 30000 \cos 11,3 = 9986$$

$$\tan \theta = \frac{5878}{9986} = 0,59$$

$$\frac{X_A}{Y_A} = \frac{P \times L}{P \times N}$$

$$\frac{X_A}{Y_A} = -\tan \varphi = -0,6$$

$$X_A = -0,6 Y_A$$

$$X_A + P \sin \alpha = 0 \Rightarrow -0,6 Y_A + P \sin \alpha = 0$$

$$Y_A = \frac{P \sin \alpha}{0,6}$$

$$Y_A - P \cos \alpha + Y_B = 0$$

$$3,3 Y_B - P(2 \cos \alpha + 0,9 \sin \alpha) = 0$$

$$\Rightarrow \frac{P \sin \alpha}{0,6} - P \cos \alpha + Y_B = 0 \Rightarrow Y_B = -P \left(-\cos \alpha + \frac{\sin \alpha}{0,6} \right)$$

$$\Rightarrow -3,3 P \left(-\cos \alpha + \frac{\sin \alpha}{0,6} \right) - P(2 \cos \alpha + 0,9 \sin \alpha) = 0$$

$$+ 3,3 P \left(\cos \alpha + \frac{\sin \alpha}{0,6} \right) + P (2 \cos \alpha + 0,9 \sin \alpha) = 0$$

$$- 3,3 \cos \alpha + \frac{3,3}{0,6} \sin \alpha + 2 \cos \alpha + 0,9 \sin \alpha = 0$$

$$\cos \alpha (-3,3 + 2) + \sin \alpha \left(\frac{3,3}{0,6} + 0,9 \right) = 0$$

$$\frac{\sin \alpha}{\cos \alpha} = \tan \alpha = \frac{+ 1,3}{0,9 + \frac{3,3}{0,6}} =$$

$$\alpha =$$