

Falkesches Schema in Block-Matrix-Schreibweise

$$\begin{pmatrix} 0 & \oplus \\ \oplus & 0 \end{pmatrix} \begin{bmatrix} \vec{U}^{(1)} \\ \vec{U}^{(2)} \end{bmatrix}$$

$$\begin{bmatrix} [\bar{K}^{(11)}] & [\bar{K}^{(12)}] \\ [\bar{K}^{(21)}] & [\bar{K}^{(22)}] \end{bmatrix} \begin{bmatrix} \vec{U}^{(1)} + \underline{\vec{U}^{(1)}} + [K^{(12)}] \cdot \vec{U}^{(2)} \\ [K^{(21)}] \vec{U}^{(1)} + [K^{(22)}] \vec{U}^{(2)} \end{bmatrix} = \begin{bmatrix} \vec{F}^{(1)} \\ \vec{F}^{(2)} \end{bmatrix} \quad (1)$$

→ Berechnung der unbekannten Verschiebungen $\vec{U}^{(1)}$

$$\text{Gl. (1)} \quad [K^{(11)}] \underline{\vec{U}^{(1)}} + [K^{(12)}] \vec{U}^{(2)} = \vec{F}^{(1)}$$

$$\rightarrow [K^{(11)}] \underline{\vec{U}^{(1)}} = \vec{F}^{(1)} - [K^{(12)}] \cdot \vec{U}^{(2)}$$