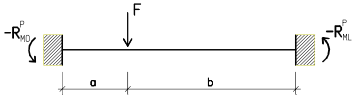
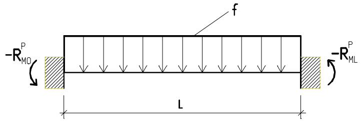
MOMENTOVÉ SLOŽKY TRANSFORMOVANÉHO ZATÍŽENÍ



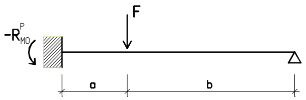
$$-R_{M0}{}^{P} = \frac{F\,a\,b^2}{L^2}$$

$$-R_{ML}{}^{P} = -\frac{F\,a^2\,b}{L^2}$$

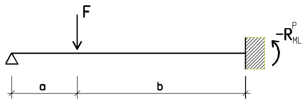


$$-R_{M0}{}^{P} = \frac{f\,L^2}{12}$$

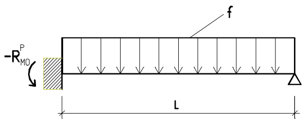
$$-R_{ML}{}^{P} = -\frac{f\,L^2}{12}$$



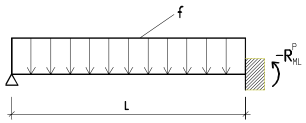
$$-R_{M0}{}^{P} = \frac{F\,a\,b}{2\,L^2}\left(b+L\right)$$



$$-R_{ML}{}^{P} = -\frac{F\,a\,b}{2\,L^2}\left(a+L\right)$$

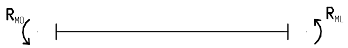


$$-R_{M0}{}^{P} = \frac{f\,L^2}{8}$$



$$-R_{ML}{}^{P} = -\frac{f\,L^2}{8}$$

MOMENTY PRO ZJEDNODUŠENOU DEFORMAČNÍ METODU

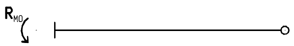


$$R_{M0} = -R_{M0}{}^{P} + k\left(2\,\varphi_0 + \varphi_L + 3\,\psi\right)$$

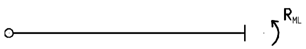
$$R_{ML} = -R_{ML}{}^{P} + k\left(2\,\varphi_L + \varphi_0 + 3\,\psi\right)$$

$$\psi = \frac{w_L - w_0}{L}$$

$$k = \frac{2\,E\,I}{L}$$



$$R_{M0} = -R_{M0}{}^{P} + k^k\left(2\,\varphi_0 + 2\,\psi\right)$$



$$R_{ML} = -R_{ML}{}^{P} + k^k\left(2\,\varphi_L + 2\,\psi\right)$$

$$k^k = \frac{3}{4}\,\frac{2\,E\,I}{L}$$

$$\left[K^{\alpha=0}\right] = \begin{bmatrix} \frac{EA}{L} & 0 & 0 & -\frac{EA}{L} & 0 & 0 \\ 0 & \frac{12EI_y}{L^3} & -\frac{6EI_y}{L^2} & 0 & -\frac{12EI_y}{L^3} & -\frac{6EI_y}{L^2} \\ 0 & -\frac{6EI_y}{L^2} & \frac{4EI_y}{L} & 0 & \frac{6EI_y}{L^2} & \frac{2EI_y}{L} \\ -\frac{EA}{L} & 0 & 0 & \frac{EA}{L} & 0 & 0 \\ 0 & -\frac{12EI_y}{L^3} & \frac{6EI_y}{L^2} & 0 & \frac{12EI_y}{L^3} & \frac{6EI_y}{L^2} \\ 0 & -\frac{6EI_y}{L^2} & \frac{2EI_y}{L} & 0 & \frac{6EI_y}{L^2} & \frac{4EI_y}{L} \end{bmatrix}$$

$$\left[K^{\alpha=-90}\right] = \begin{bmatrix} \frac{12EI_y}{L^3} & 0 & -\frac{6EI_y}{L^2} & -\frac{12EI_y}{L^3} & 0 & -\frac{6EI_y}{L^2} \\ 0 & \frac{EA}{L} & 0 & 0 & -\frac{EA}{L} & 0 \\ -\frac{6EI_y}{L^2} & 0 & \frac{4EI_y}{L} & \frac{6EI_y}{L^2} & 0 & \frac{2EI_y}{L} \\ -\frac{12EI_y}{L^3} & 0 & \frac{6EI_y}{L^2} & \frac{12EI_y}{L^3} & 0 & \frac{6EI_y}{L^2} \\ 0 & -\frac{EA}{L} & 0 & 0 & \frac{EA}{L} & 0 \\ -\frac{6EI_y}{L^2} & 0 & \frac{2EI_y}{L} & \frac{6EI_y}{L^2} & 0 & \frac{4EI_y}{L} \end{bmatrix}$$