Struttura iperstatica
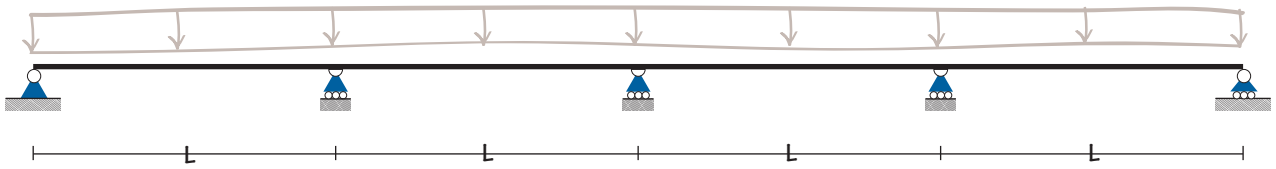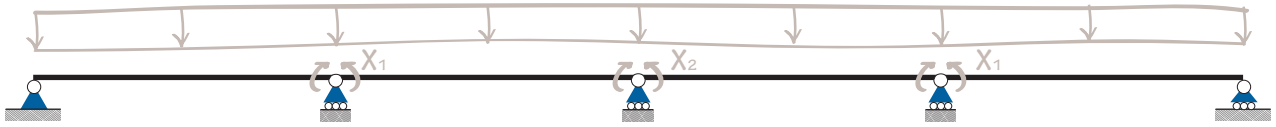

Struttura isostatica equivalente
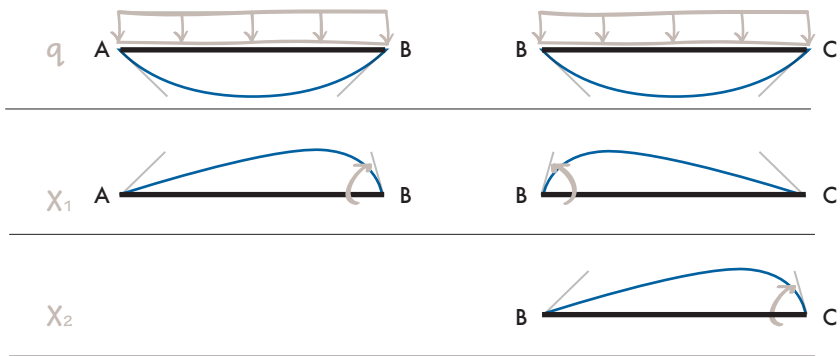

Equazioni di compatibilità cinematica:

$\Delta\varphi_B = \Delta\varphi_D = 0$ per simmetria

$\Delta\varphi_B = \Delta\varphi_{BS} + \Delta\varphi_{BD}$

Contributi:

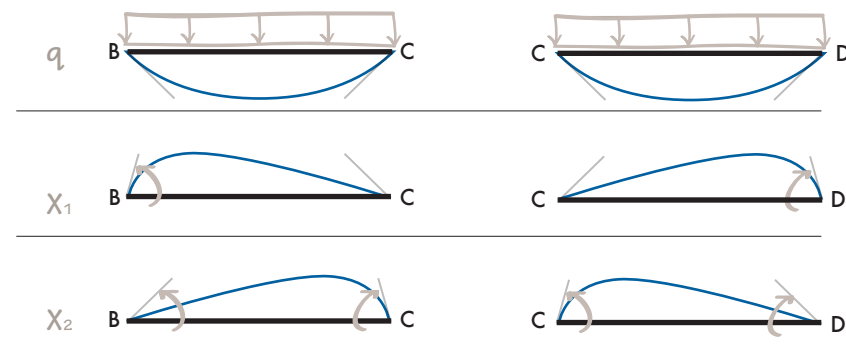$$\Delta\varphi_{BS} = +\frac{ql^3}{24EJ} - \frac{X_1l}{3EJ}$$

$$\Delta\varphi_{BD} = -\frac{ql^3}{24EJ} + \frac{X_1l}{3EJ} + \frac{X_2l}{6EJ}$$

$\Delta\varphi_C = 0$

$\Delta\varphi_C = \Delta\varphi_{CS} + \Delta\varphi_{CD}$

Contributi:

$$\Delta\varphi_{BS} = +\frac{ql}{24EJ} - \frac{X_1l}{6EJ} - \frac{X_2l}{3EJ}$$

$$\Delta\varphi_{CD} = -\frac{ql}{24EJ} + \frac{X_1l}{6EJ} + \frac{X_2l}{3EJ}$$