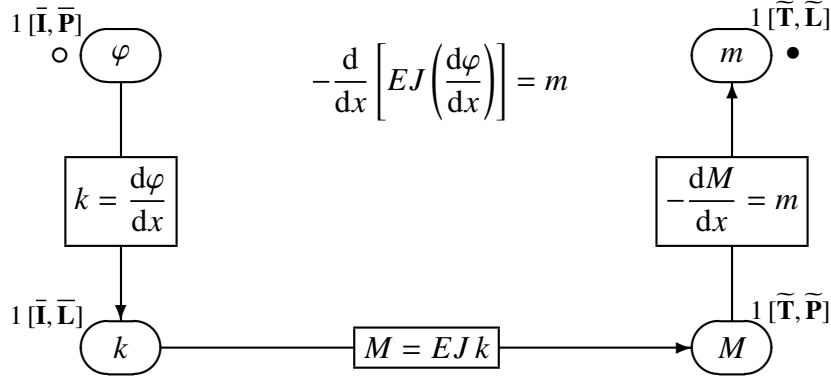


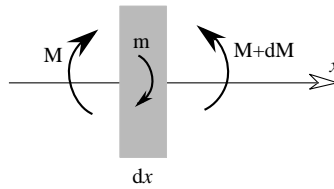
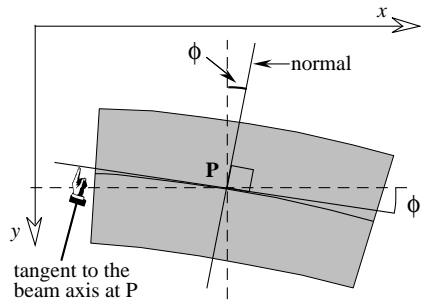
Bending of beams

*inner space orientation
dual time intervals*

*outer space orientation
primal time intervals*



$$-\frac{d}{dx} \left[EJ \left(\frac{d\varphi}{dx} \right) \right] = m$$



φ angle formed by
the tangent and the x-axis

m body couple for unit length

M bending moment

k curvature

E elastic modulus

J second order moment

