

Topic

Statically Indeterminate Structures

Governing Equations and Assumptions

$$\delta = \sum \frac{N_i L_i}{E_i A_i}$$

Equation of Compatibility

$$\sum F = 0, \quad \sum M = 0$$

Process

① Enforce Equilibrium

$$\sum F = 0$$

$$\sum M = 0$$

② Determine the Equation of Compatibility

=> Constraint for Deformations (δ)

③ Solve for the unknowns