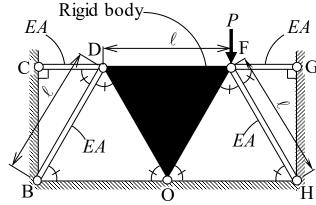
Entrance Examination for International Master's Program 2022

- (I) Answer the following three questions for Fig. 1. (25 points)
 - (1) Obtain the relationship between displacement δ_{FV} of point F in the loading direction and elongation of elastic bar FH, λ_{FH} .
 - (2) Obtain the displacement δ_{FV} of point F in the loading direction.
- (II) Answer the following two questions for Fig. 2. (25 points)
 - (1) Draw the BMD (Bending Moment Diagram) of part OA.
 - (2) Obtain the displacement δ_{CV} of point C in the loading direction.

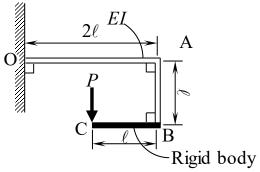


o: Pin joint

E : Young's modulus

A: Cross-sectional area

Fig. 1



E: Young's modulus

I : Moment of inertia

Fig. 2