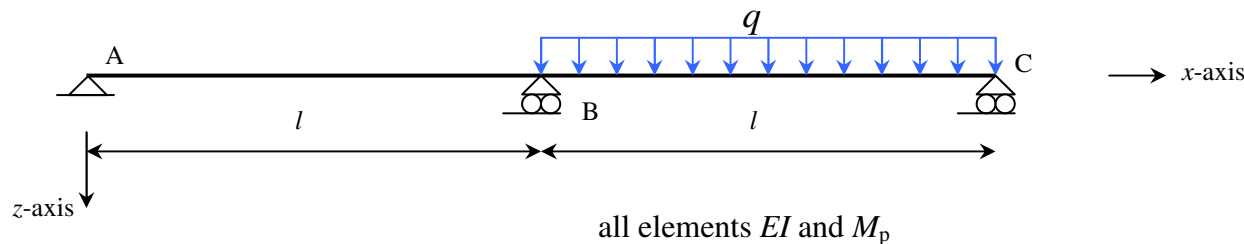


## BEAM MECHANISM



### Question:

- Find with virtual work the collapse load

### HINT:

- Assume a plastic hinge at span BC at an unknown distance  $a$  from B
- The lowest load is the collapse load therefore find the minimum for the expression of the load with respect to the variable  $a$  and thus the value of  $a$  and the collapse load  $q_p$ .

Answer  
 $a = 1.66M_p/l^2$