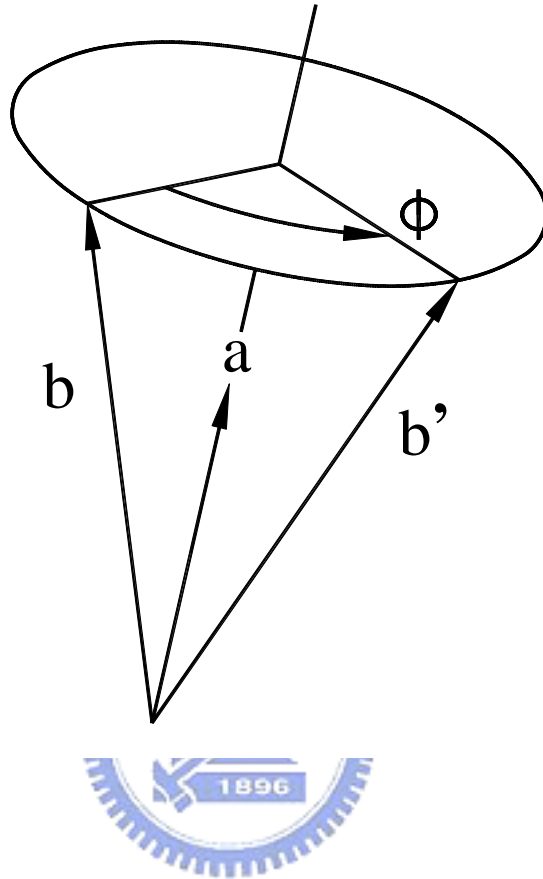
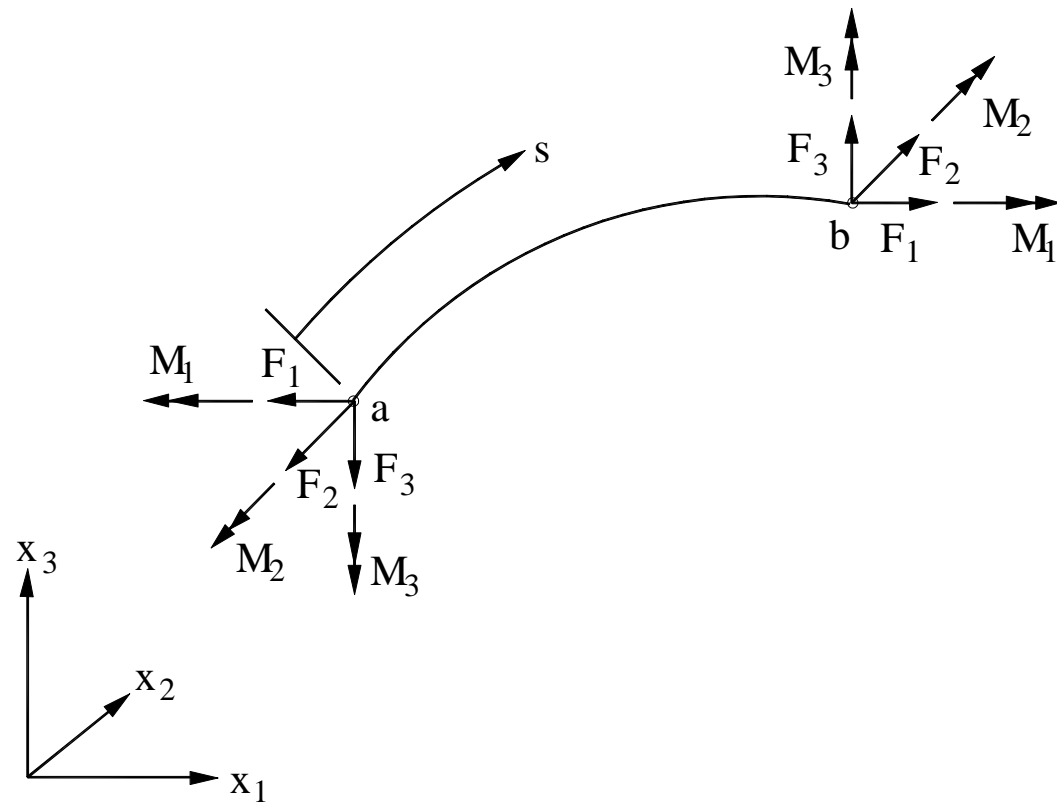


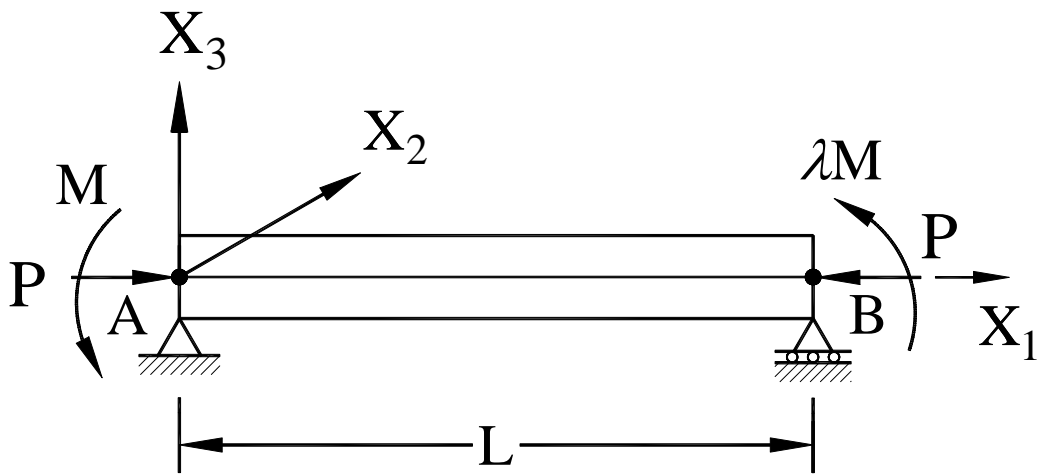
圖一 元素座標與元素截面座標



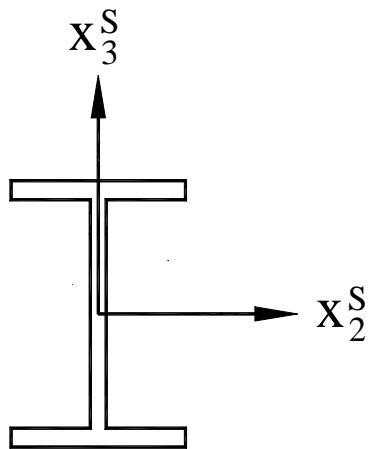
圖二 旋轉向量



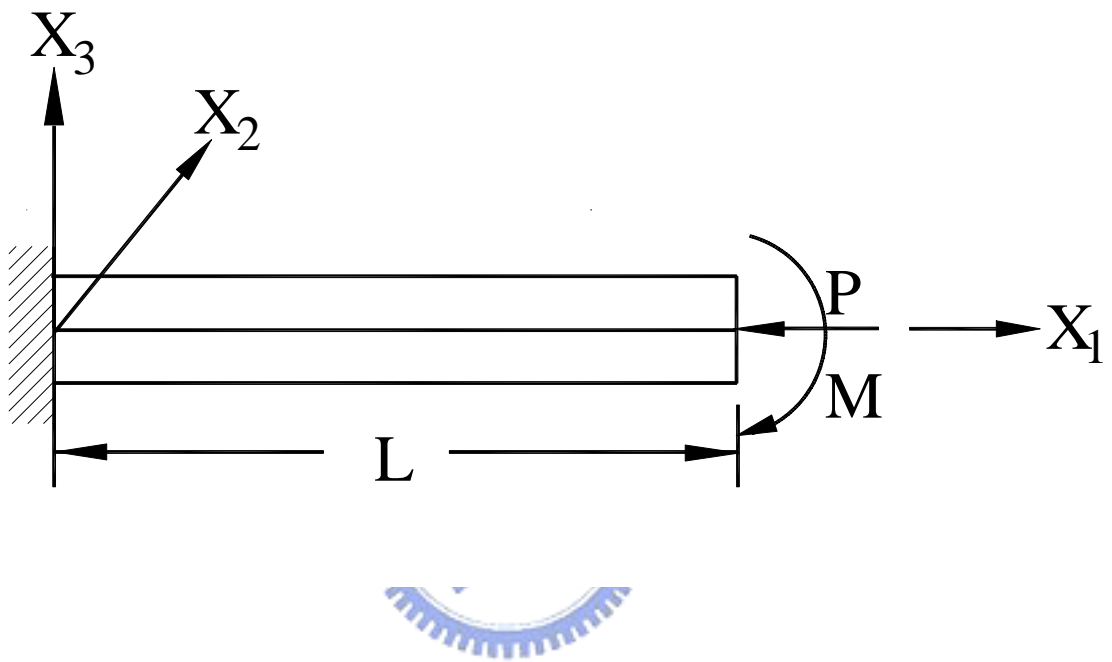
圖三 作用於元素中任一小段的端點負荷



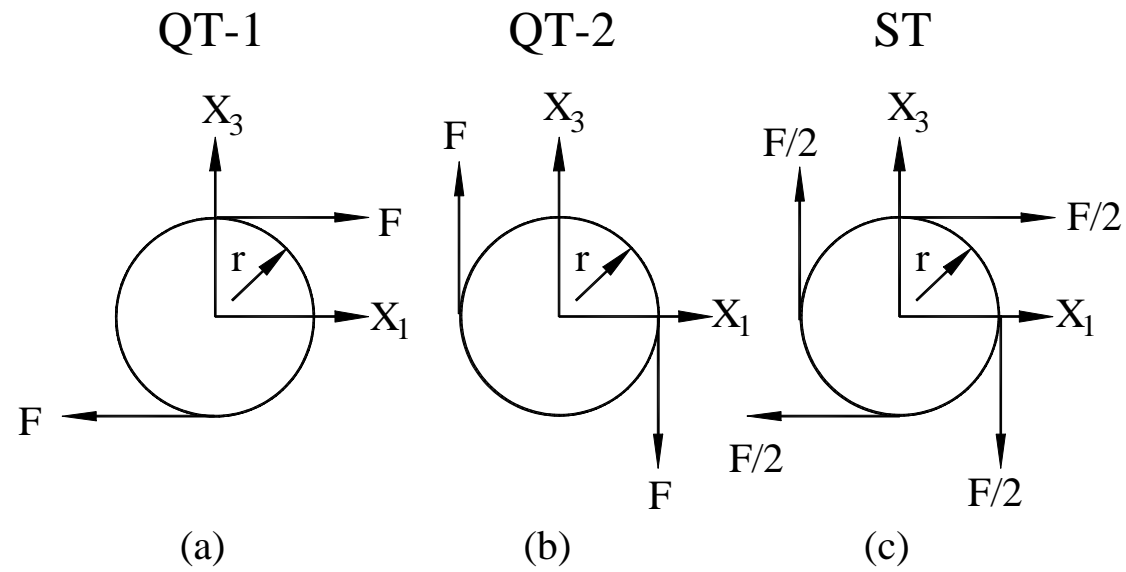
Cross section



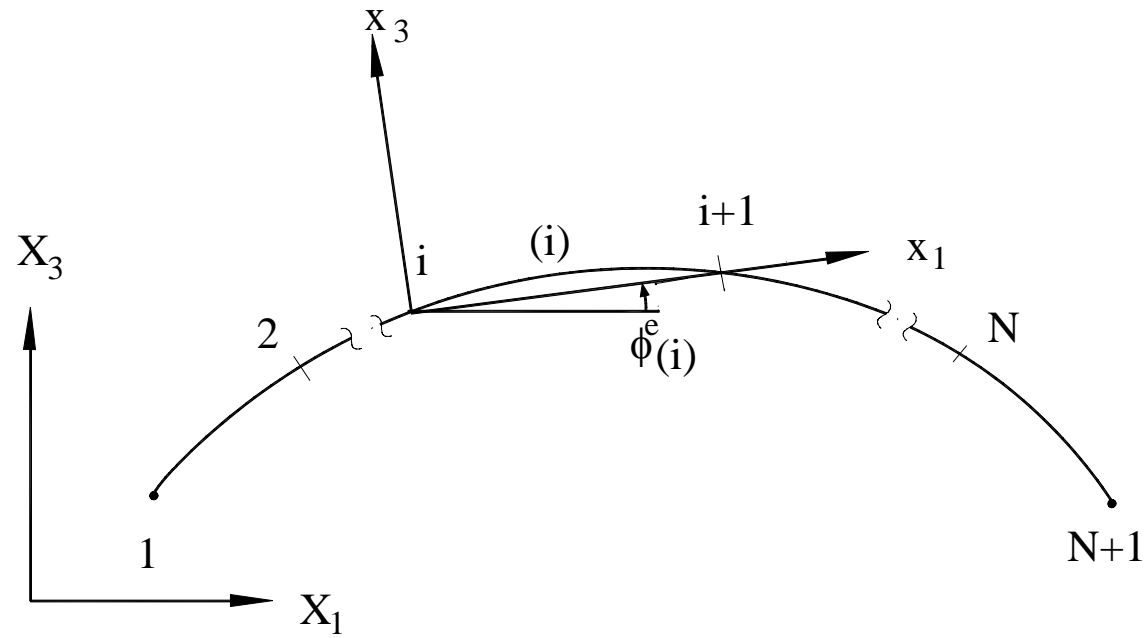
圖四 簡支梁兩端承受彎矩及軸力之結構圖



圖五 懸臂梁兩端承受彎矩及軸力之結構圖



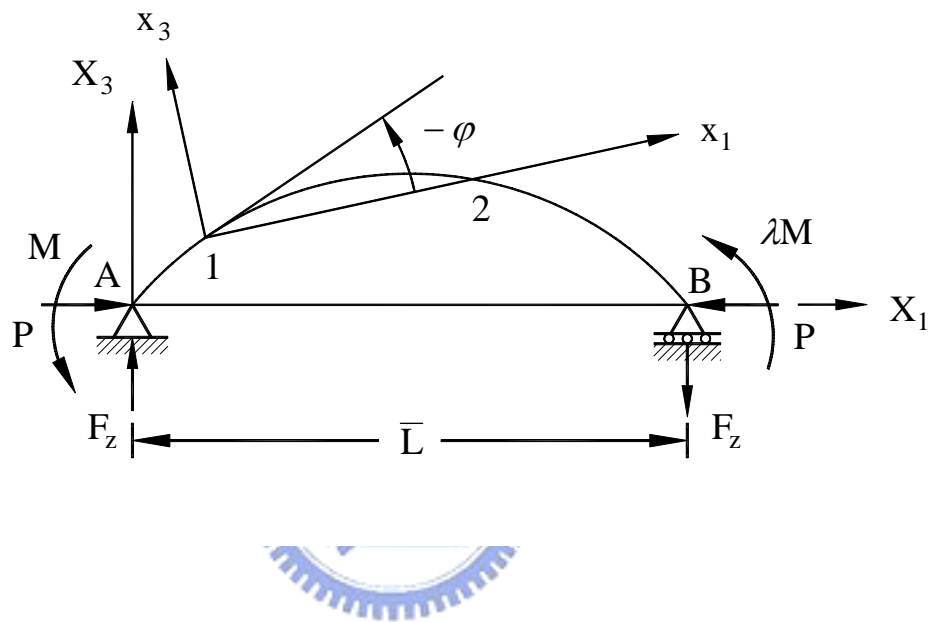
圖六 QT-1、QT-2、ST 型彎矩示意圖



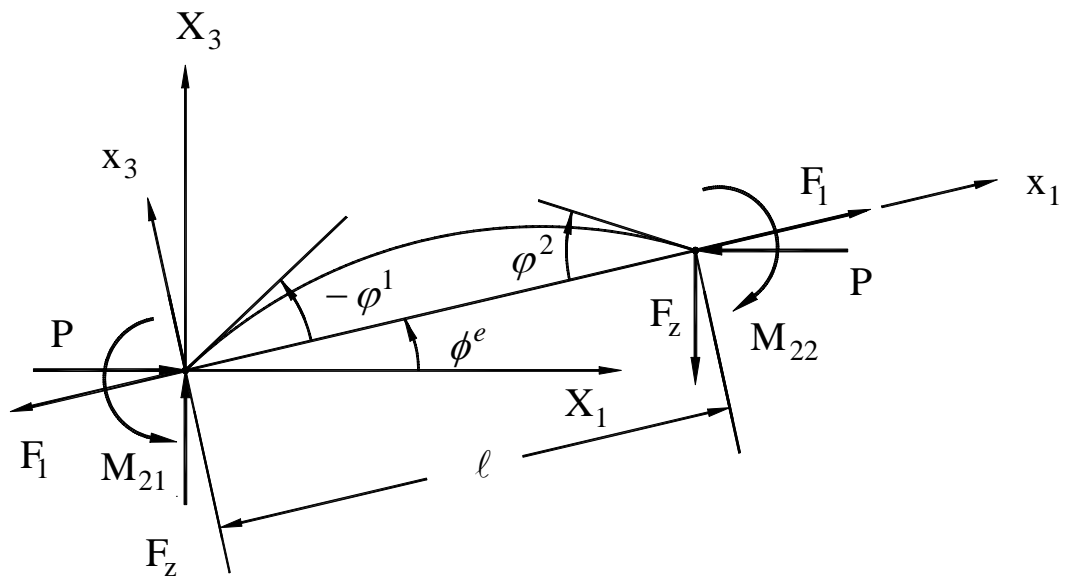
(i): the ith element

i : the ith node

圖七 梁之有限元素分割



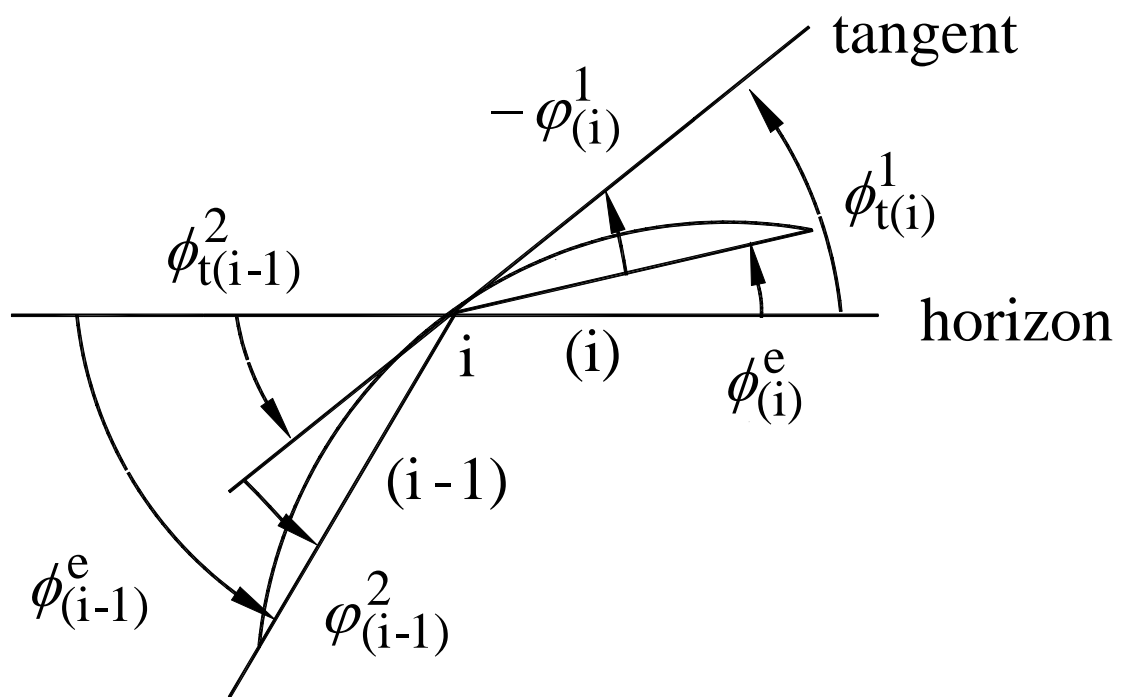
圖八 簡支梁之主要平衡路徑



$$F_1 = -P \cos \phi^e - F_z \sin \phi^e$$



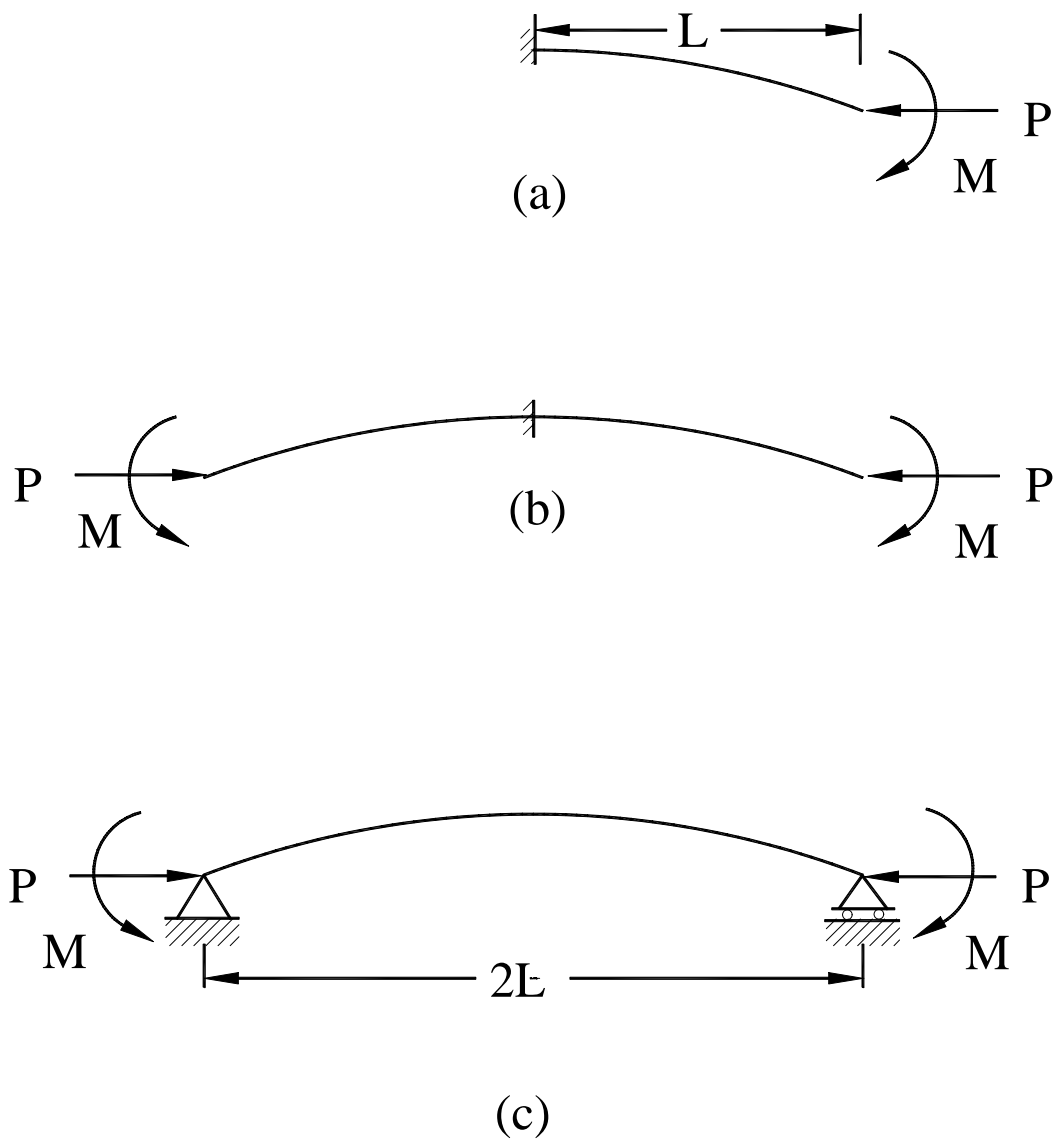
圖九 梁元素在主要平衡路徑之自由體圖



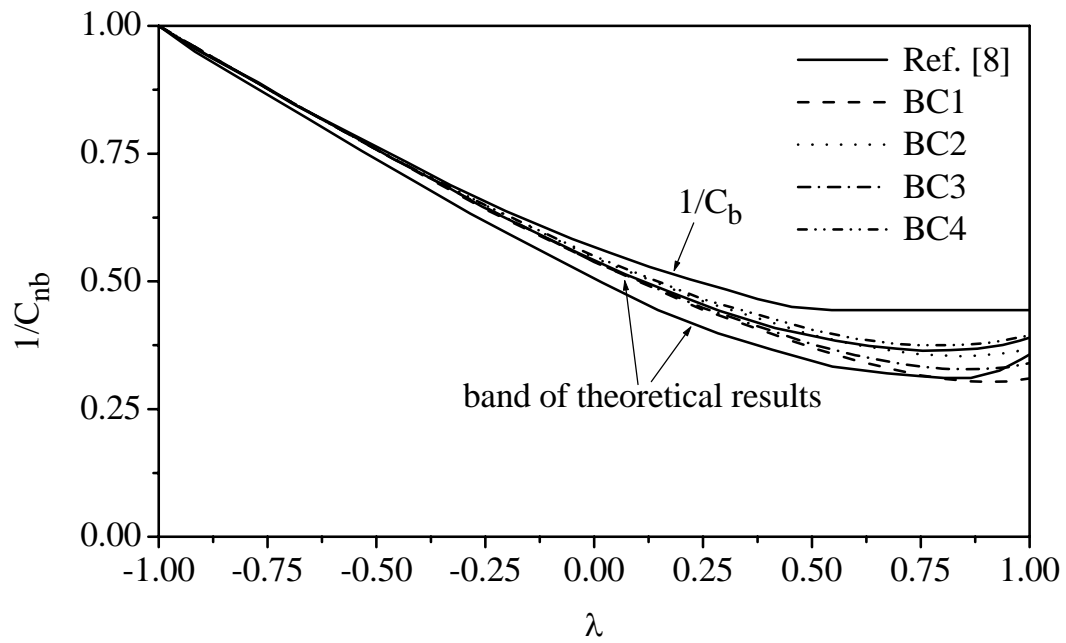
i : the i th node

(i) : the i th element

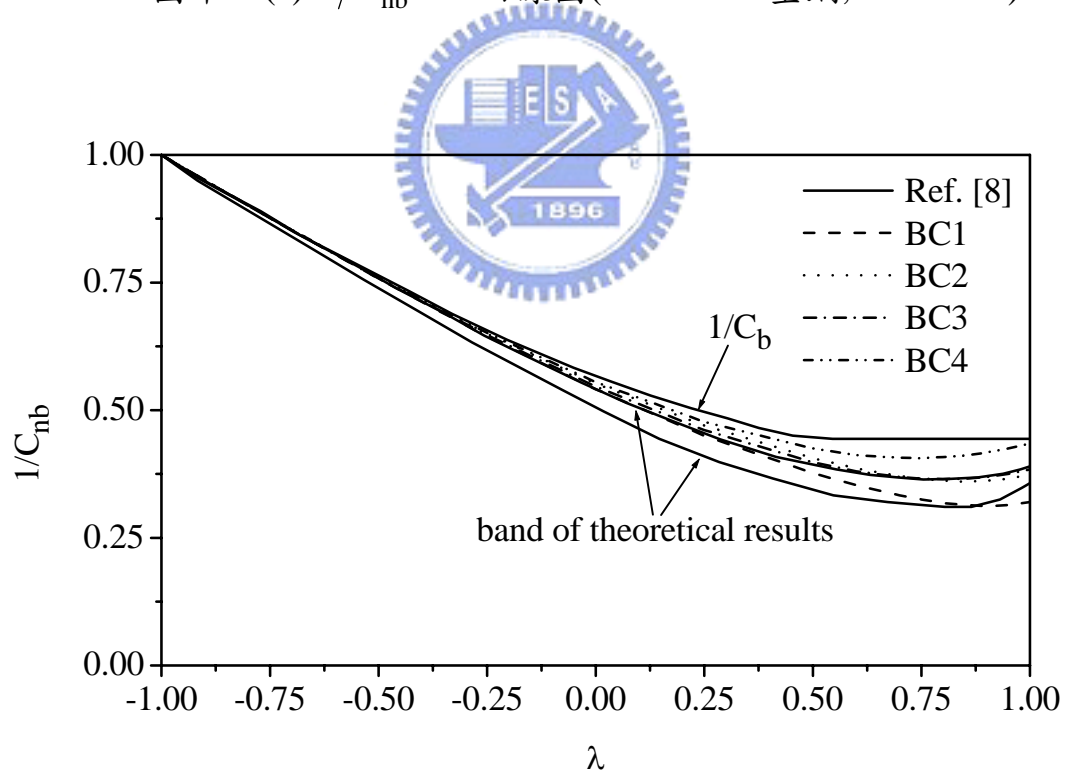
圖十 梁元素之角度放大示意圖



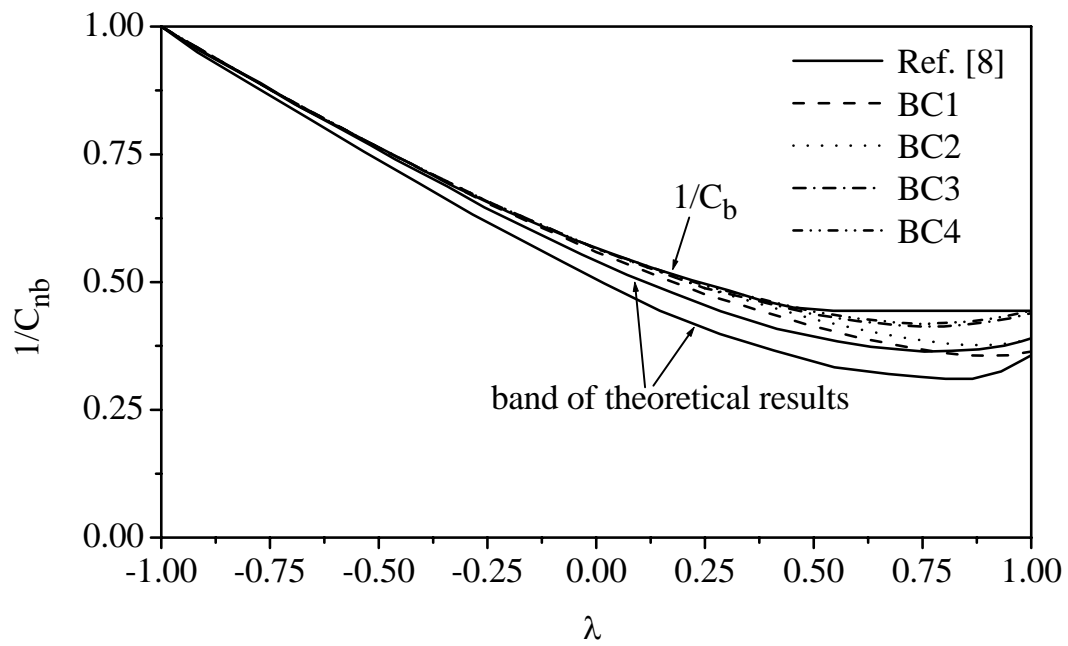
圖十一 懸臂梁之主要平衡路徑示意圖



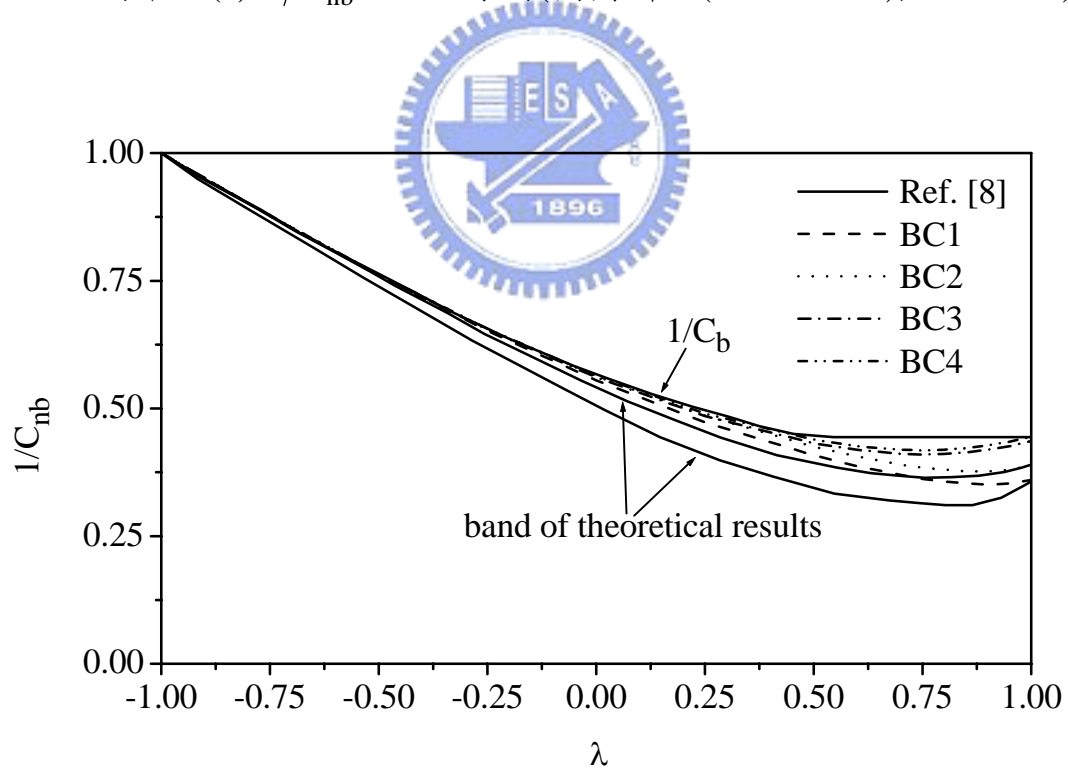
圖十二(a) $1/C_{nb} - \lambda$ 曲線圖(W14×159 型鋼, L=300 in)



圖十二(b) $1/C_{nb} - \lambda$ 曲線圖(W10×30 型鋼, L=300 in)



圖十二(c) $1/C_{nb} - \lambda$ 曲線圖(橢圓斷面($a:b = 10:1$), $L = 25$ cm)



圖十二(d) $1/C_{nb} - \lambda$ 曲線圖(橢圓斷面($a:b = 30:1$), $L = 25$ cm)