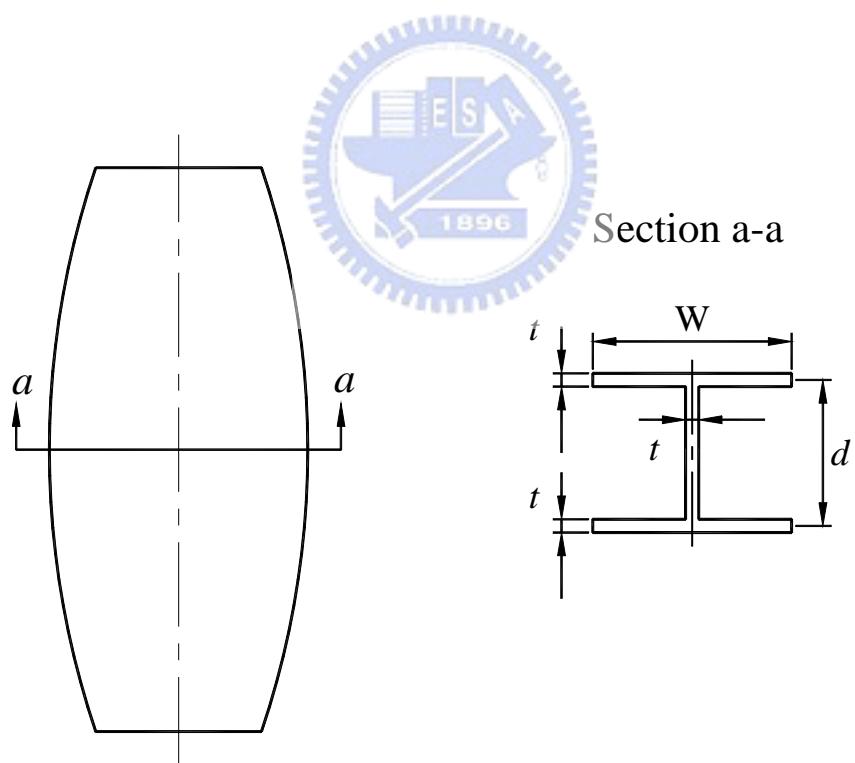
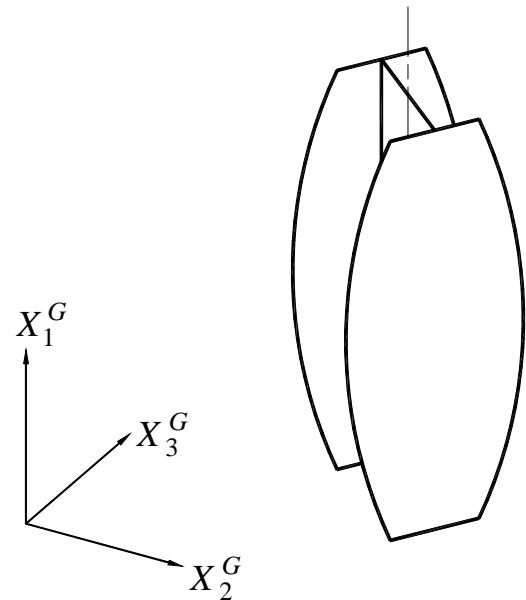
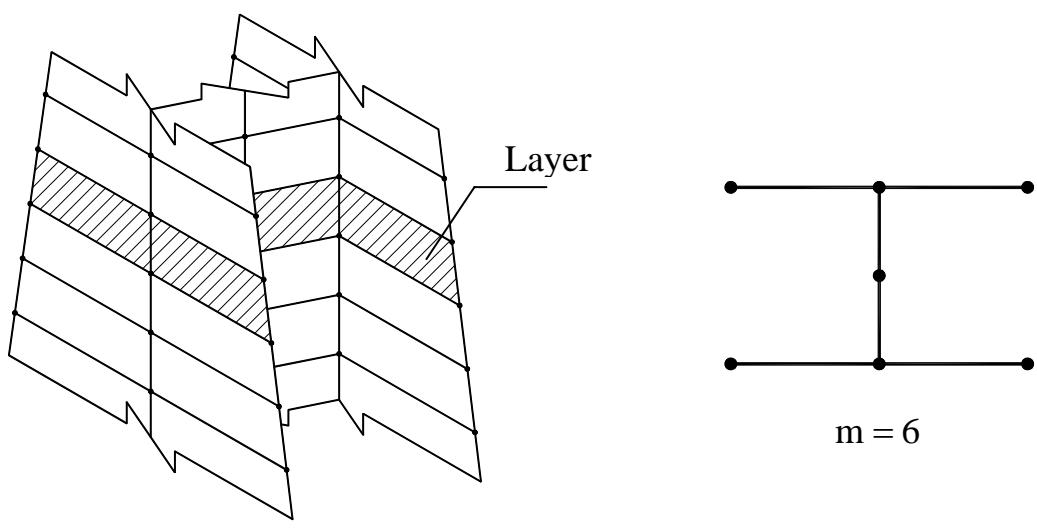


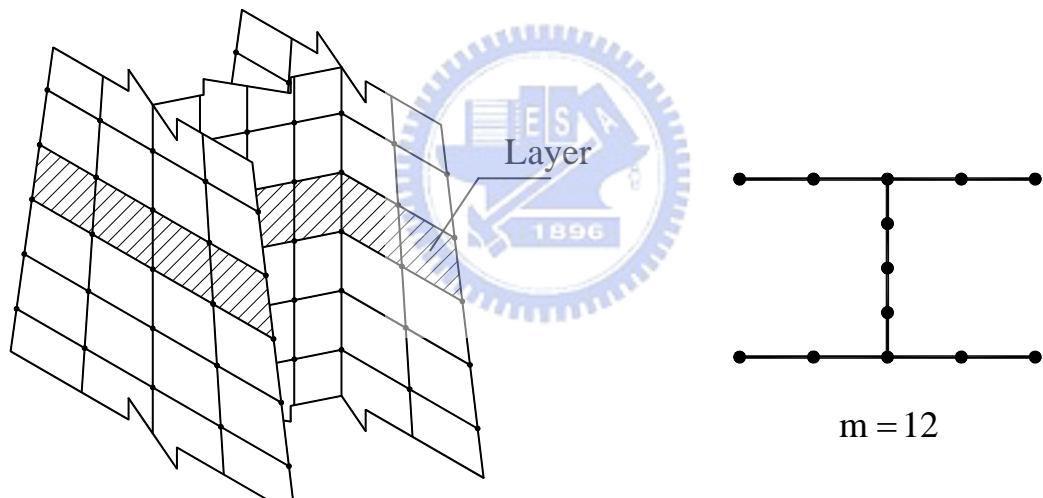
圖一 簡支及固端變斷面梁之類型



圖二

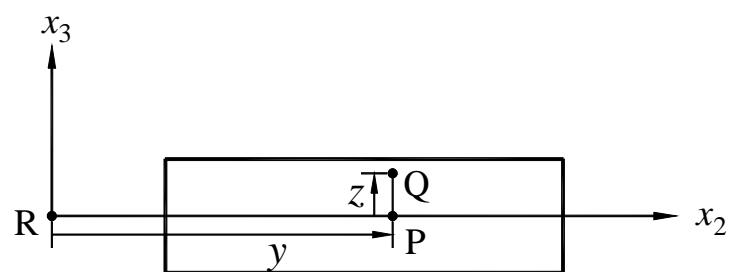
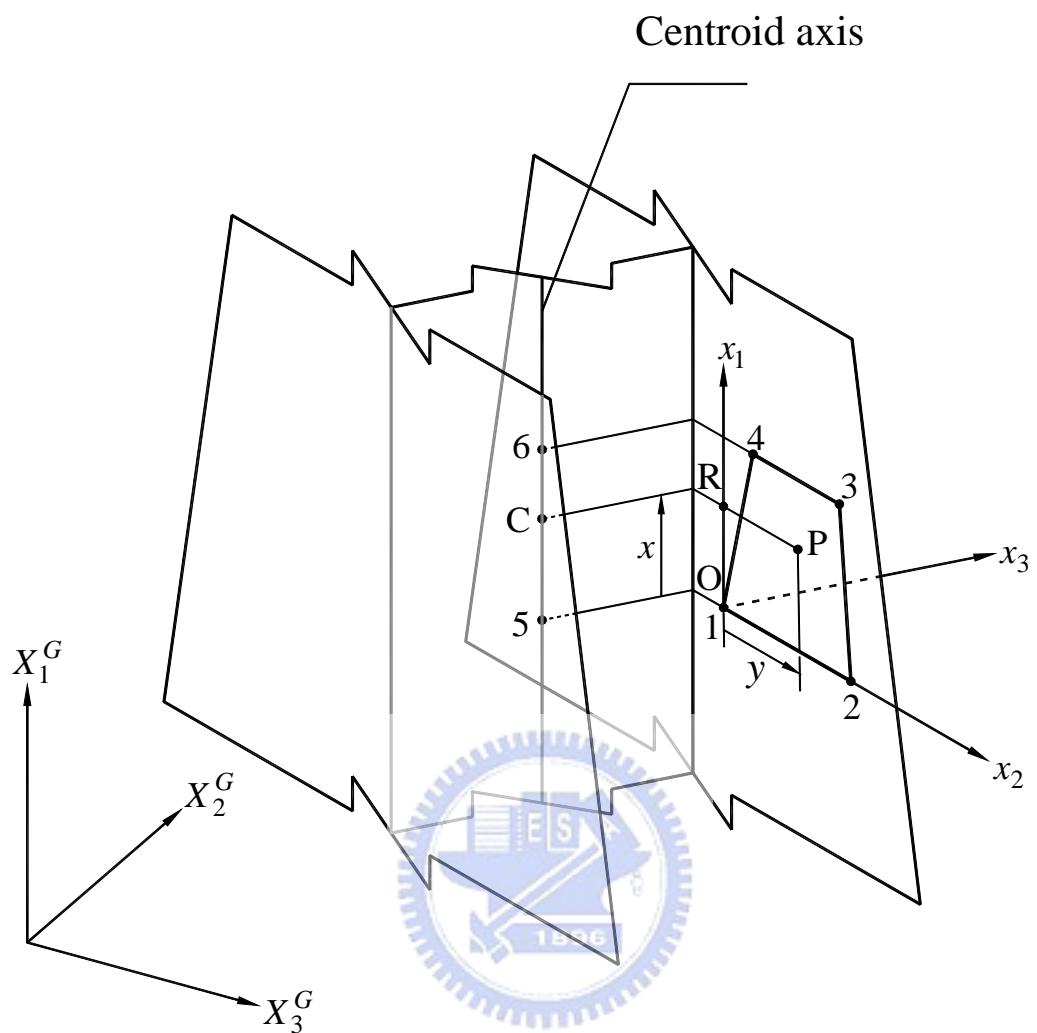


(a)



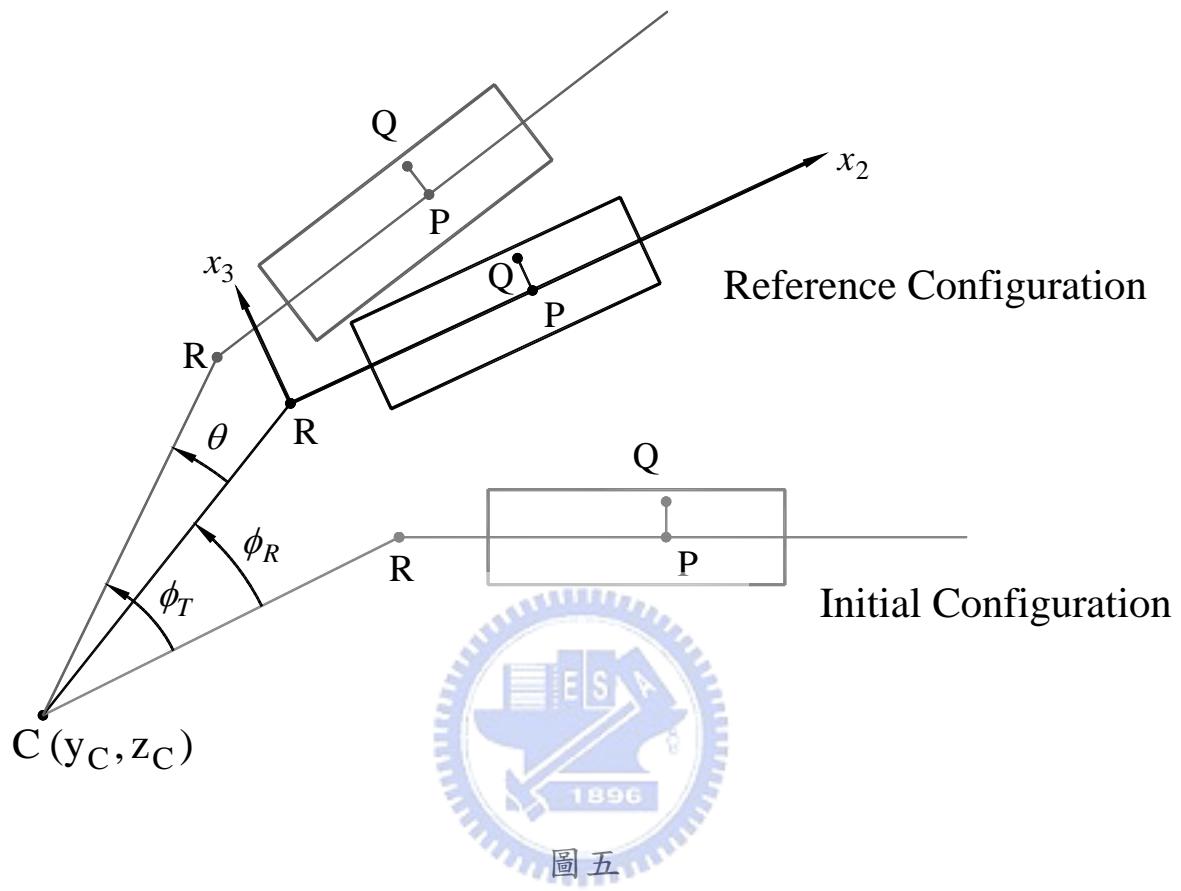
(b)

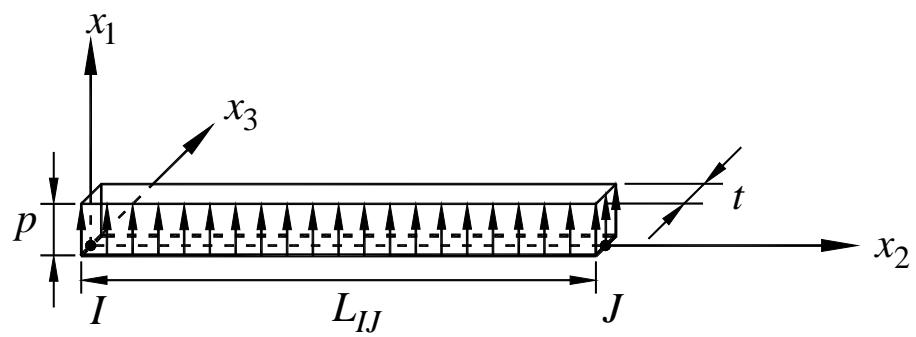
圖三 元素分割示意圖



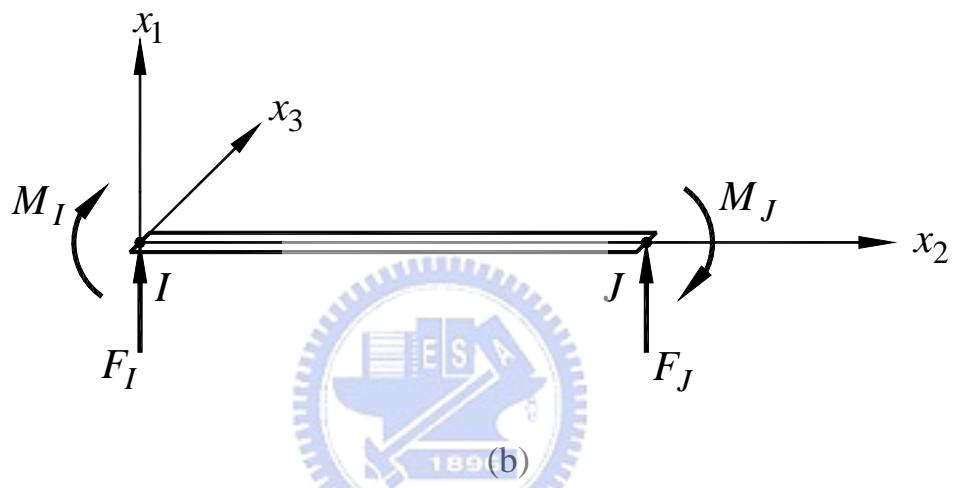
圖四

Current Configuration

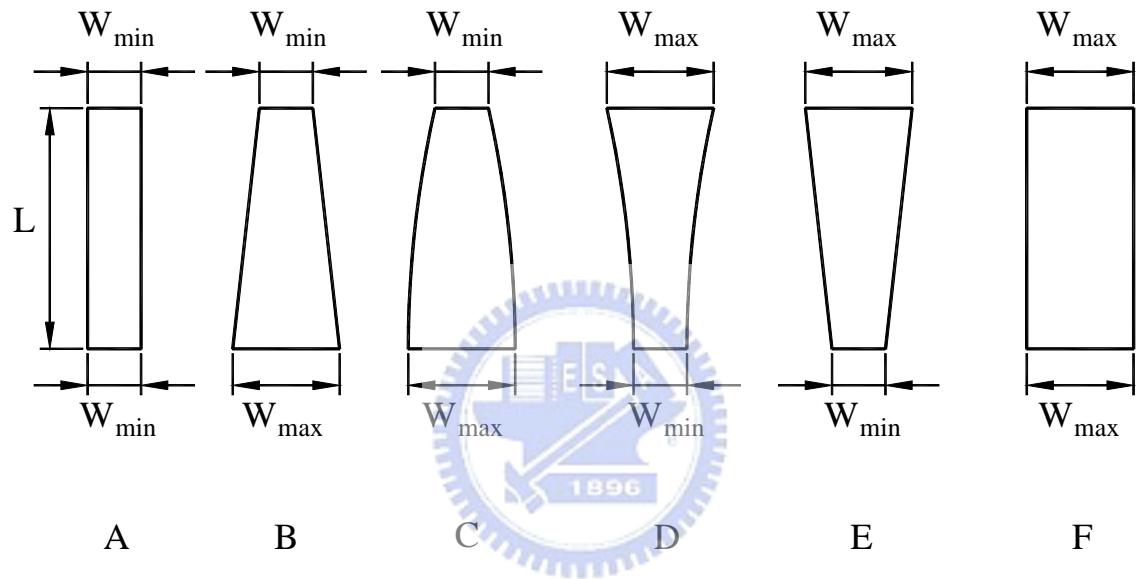
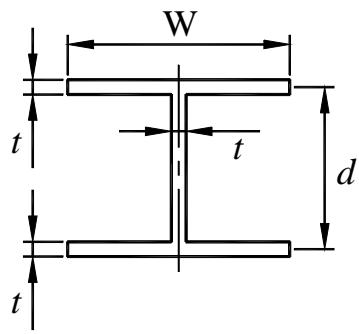




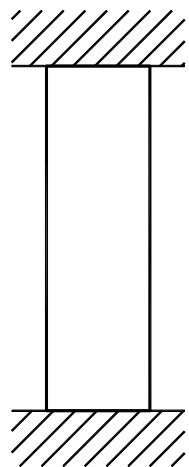
(a)



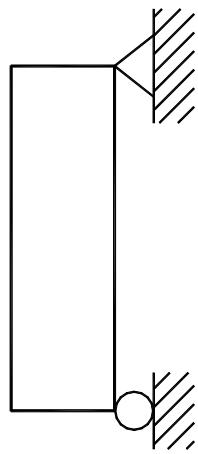
圖六 元素的均佈載重及其等效節點外力



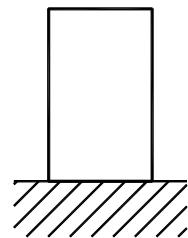
圖七 懸臂變斷面梁之類型



固端梁



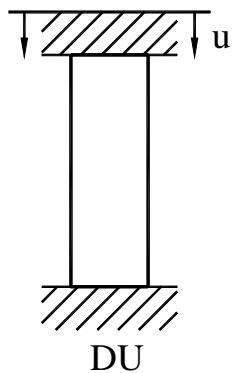
簡支梁



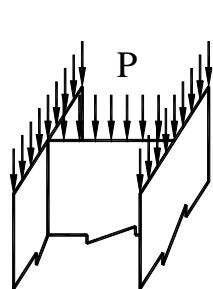
懸臂梁

圖八 各種邊界條件之變斷面梁

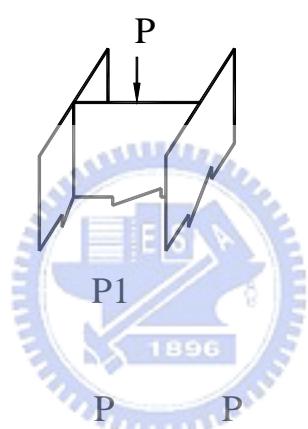




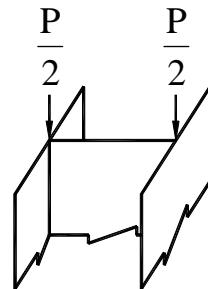
(a)



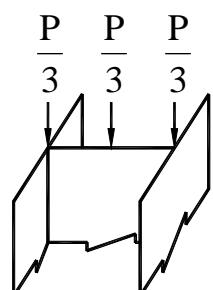
PU



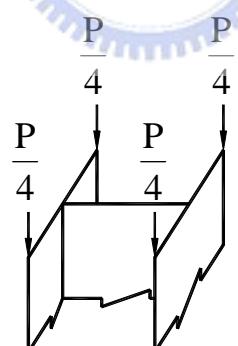
P1



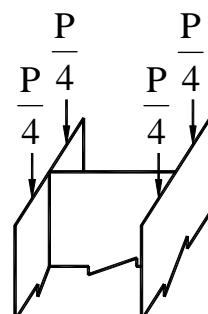
P2



P3



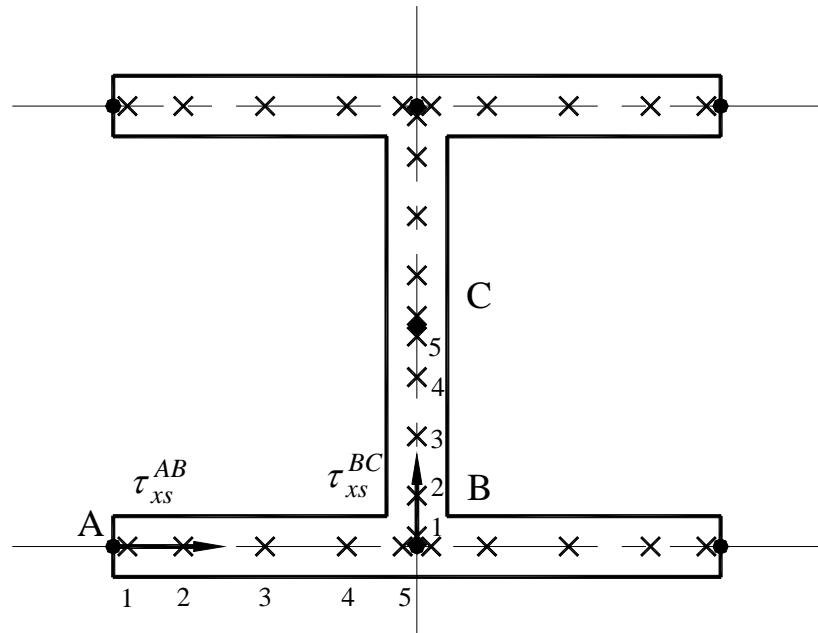
P4



P4A

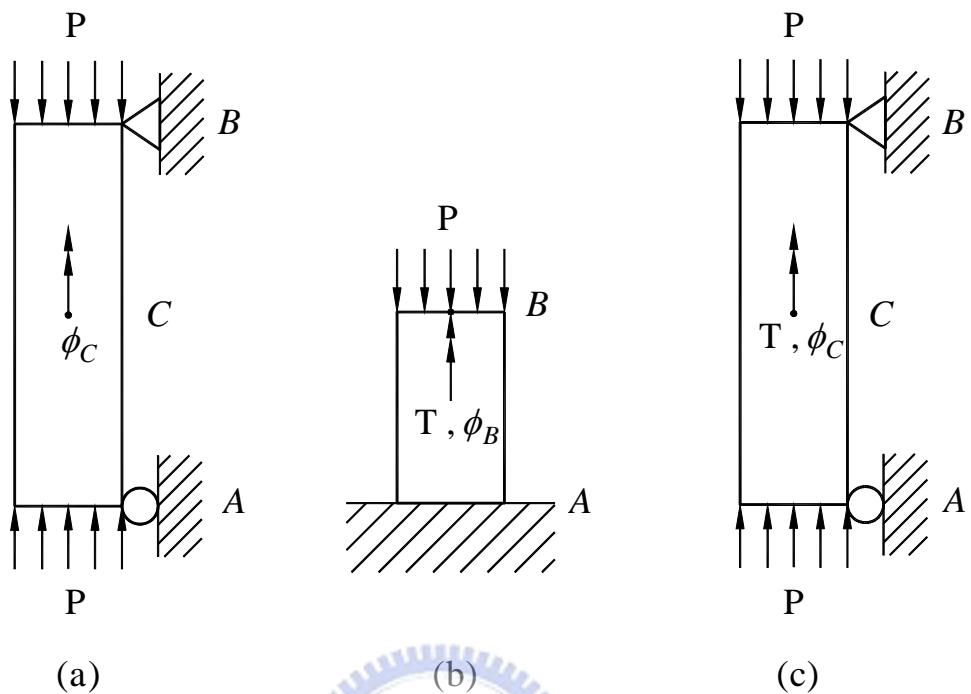
(b)

圖九 梁端點之各種負載

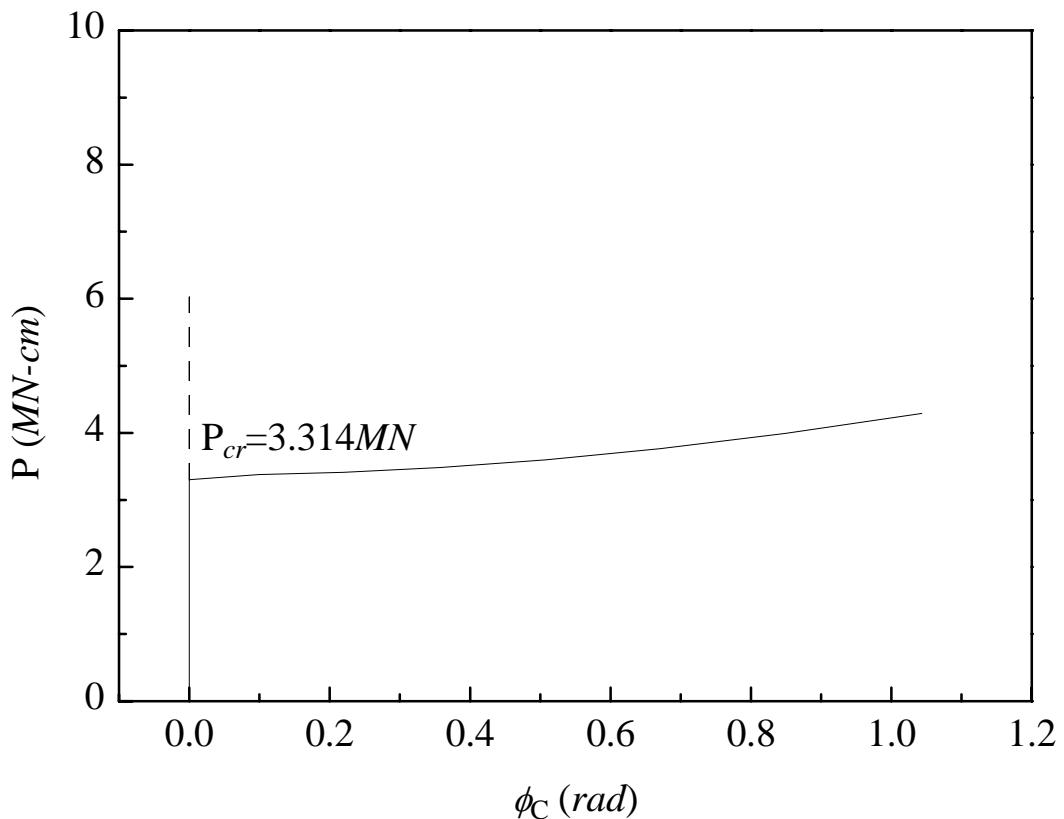


圖十 梁斷面上之節點與高斯積分點

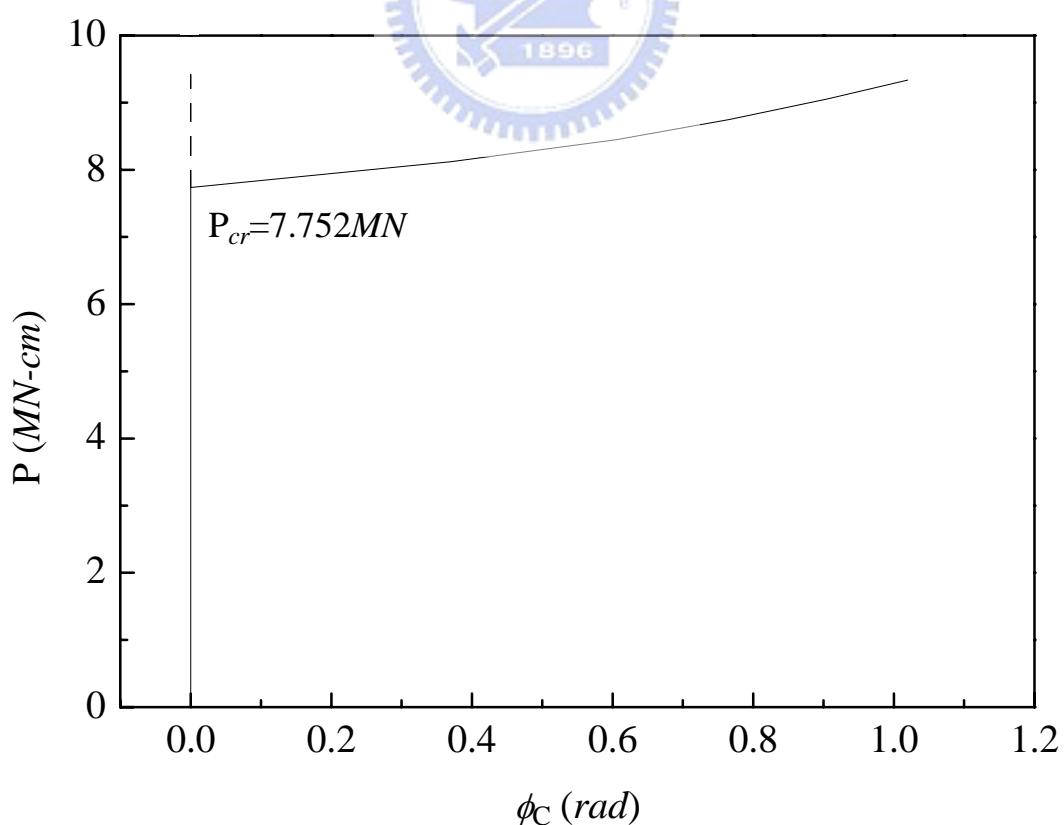
(其中 A,B,C 等”•”點為元素節點，1,2,3,4,5 等”x”點為斷面邊上之高斯積分點)



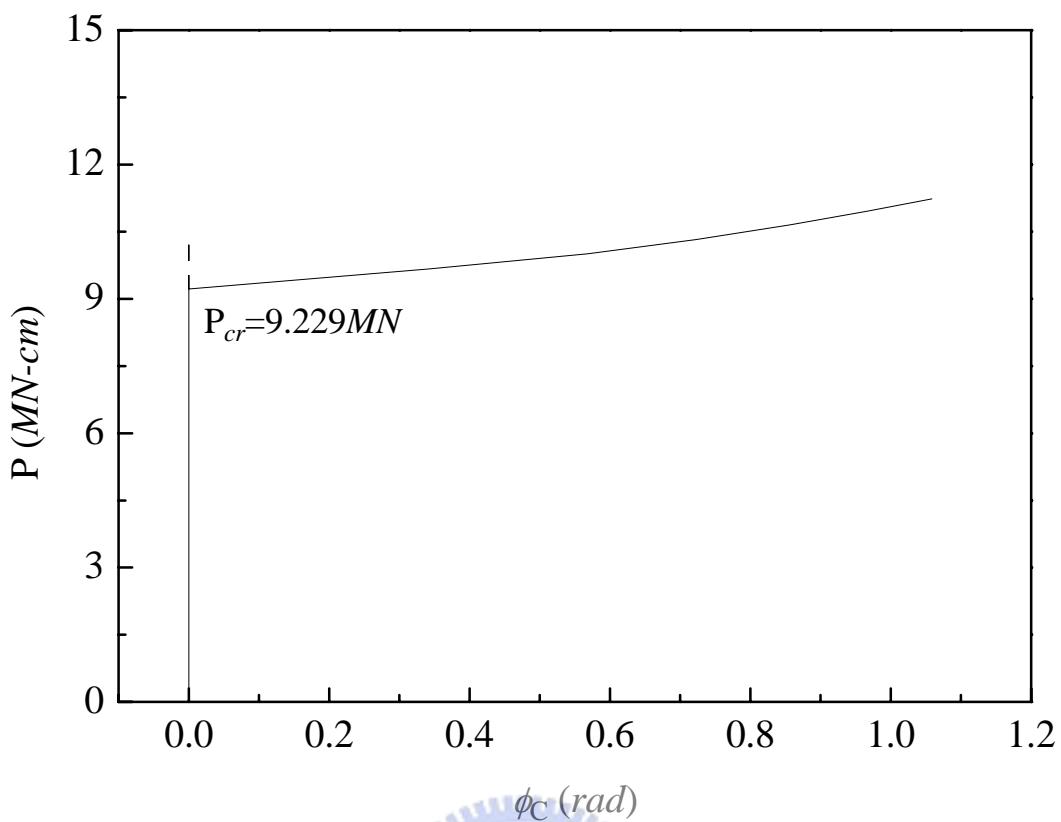
圖十一 簡支梁與懸臂梁含扭轉變形之外力負載



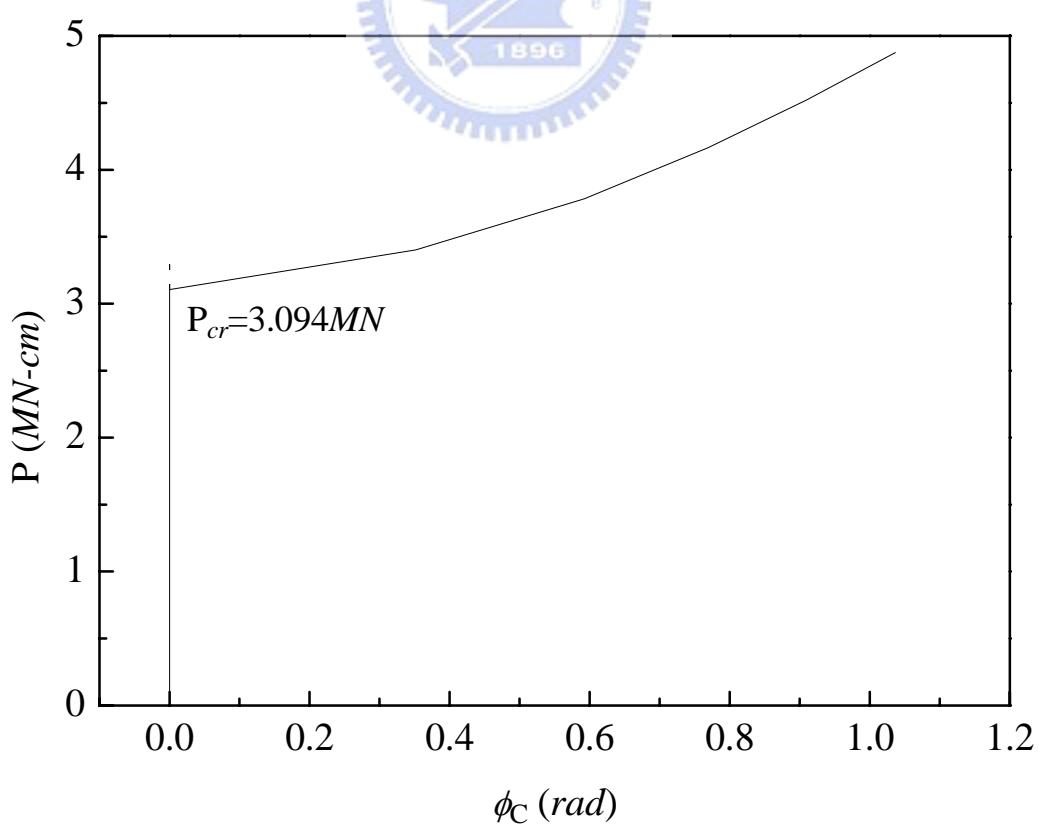
圖十二 簡支梁兩端受均佈力之載重-扭轉角曲線圖(斷面 A)



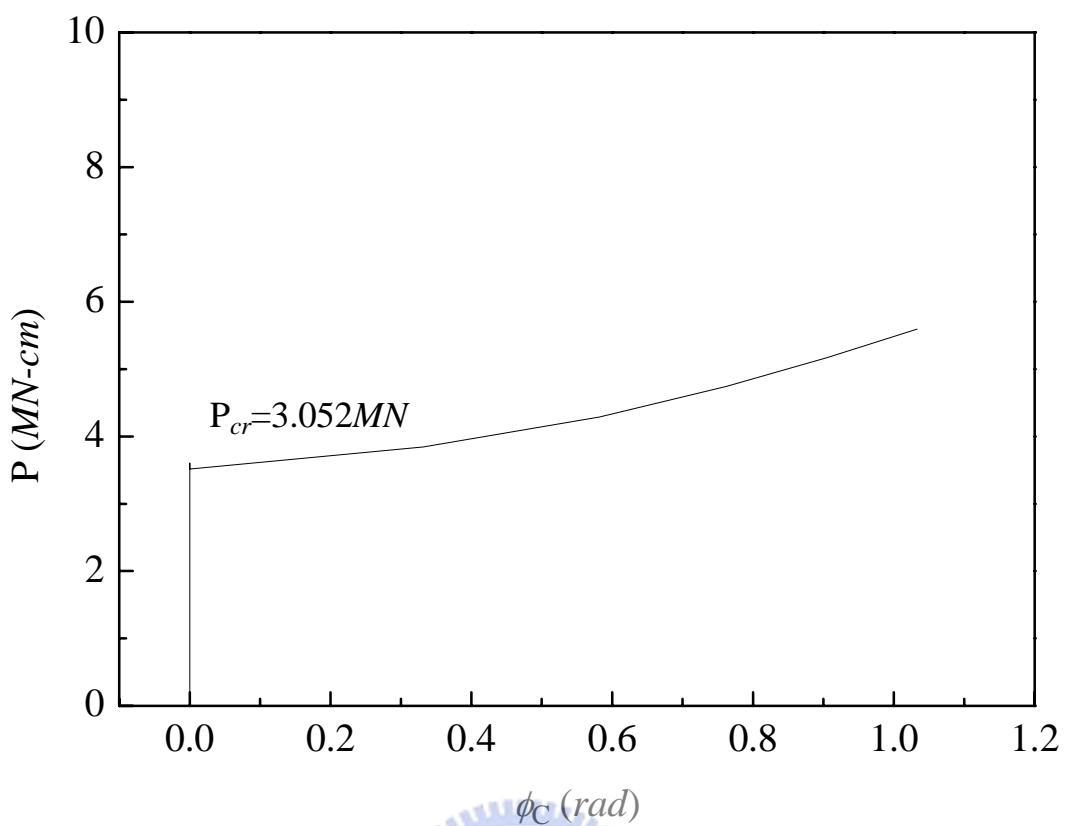
圖十三 簡支梁兩端受均佈力之載重-扭轉角曲線圖(斷面 B)



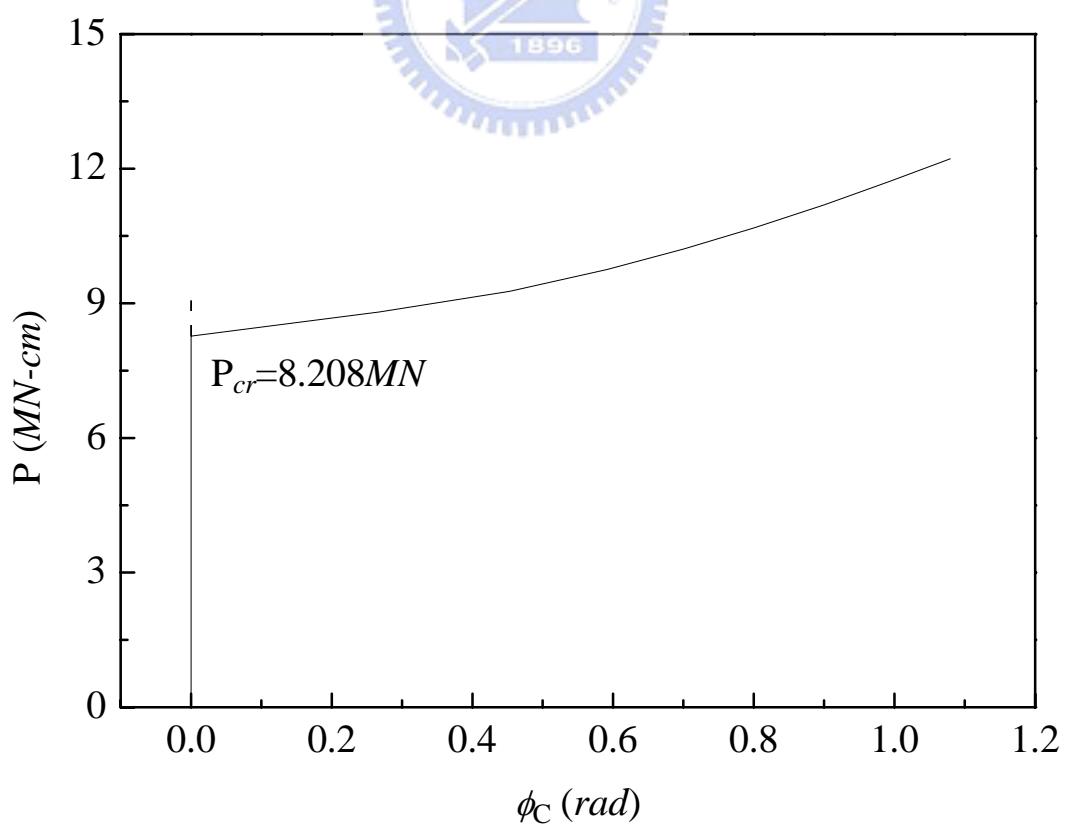
圖十四 簡支梁兩端受均佈力之載重-扭轉角曲線圖(斷面 C)



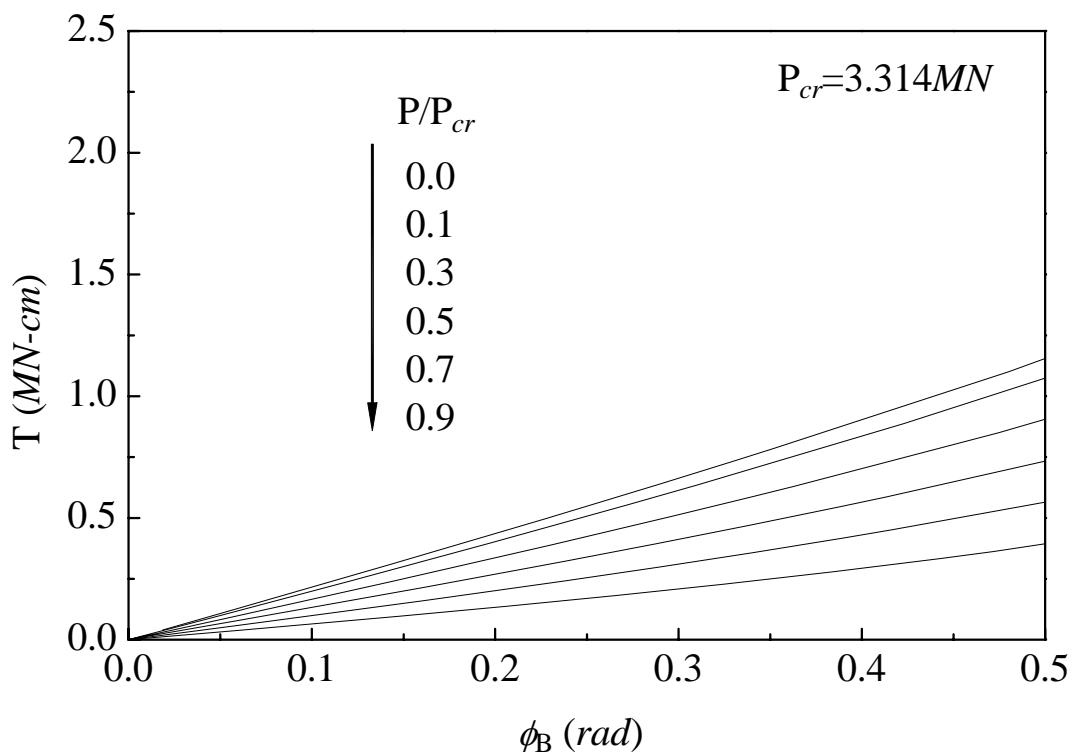
圖十五 簡支梁兩端受均佈力之載重-扭轉角曲線圖(斷面 D)



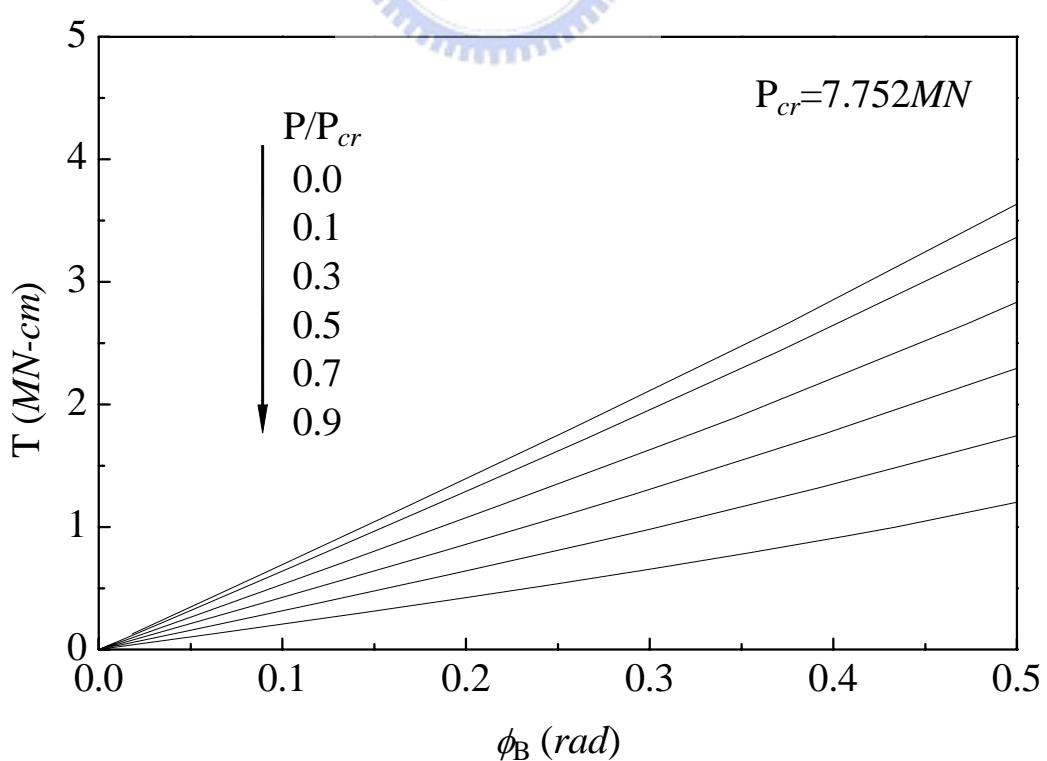
圖十六 簡支梁兩端受均佈力之載重-扭轉角曲線圖(斷面 E)



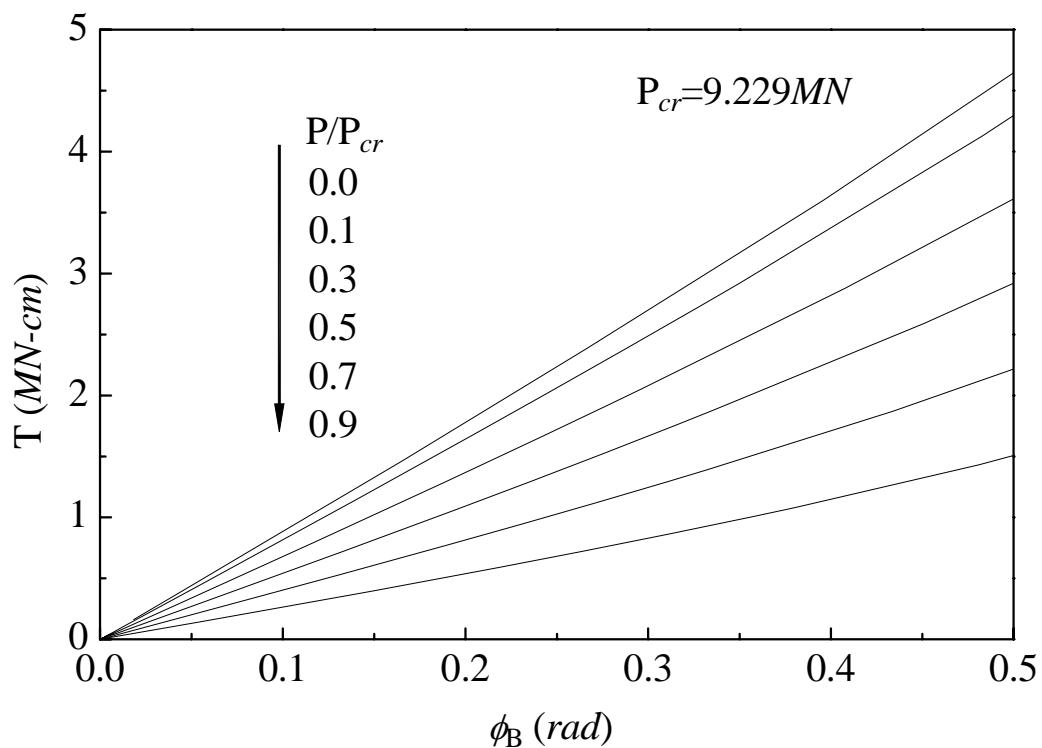
圖十七 簡支梁兩端受均佈力之載重-扭轉角曲線圖(斷面 F)



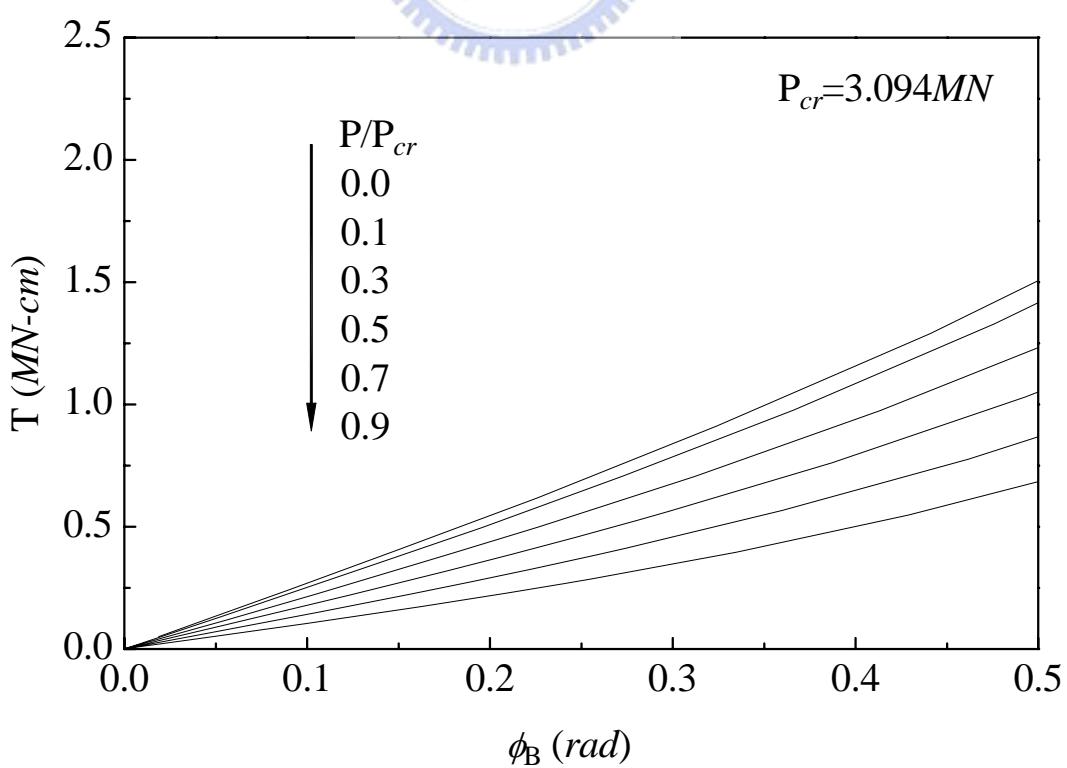
圖十八 懸臂梁受軸力及扭矩之扭矩-扭轉角曲線圖(斷面 A)



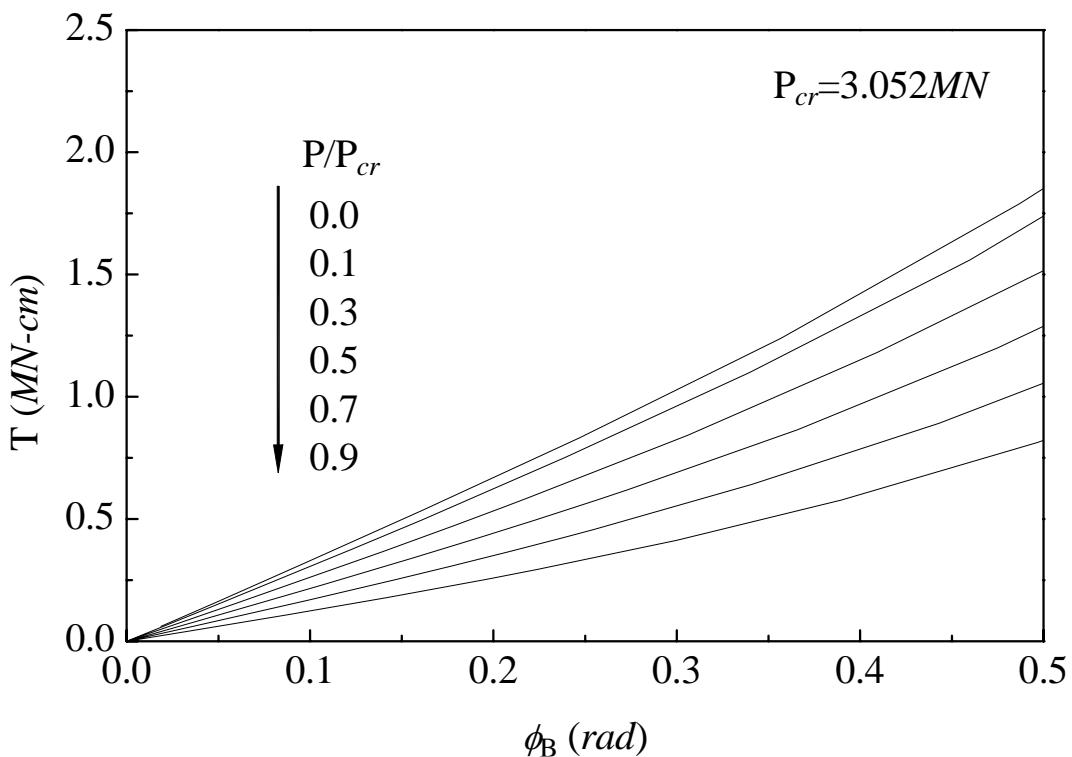
圖十九 懸臂梁受軸力及扭矩之扭矩-扭轉角曲線圖(斷面 B)



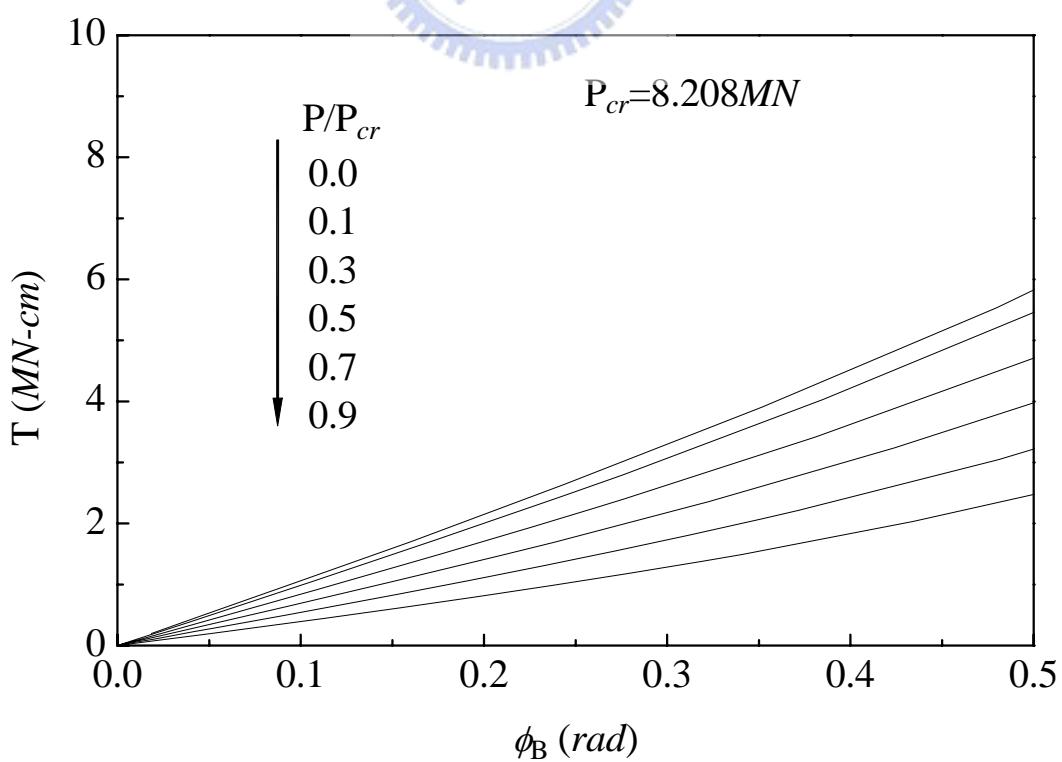
圖二十 懸臂梁受軸力及扭矩之扭矩-扭轉角曲線圖(斷面 C)



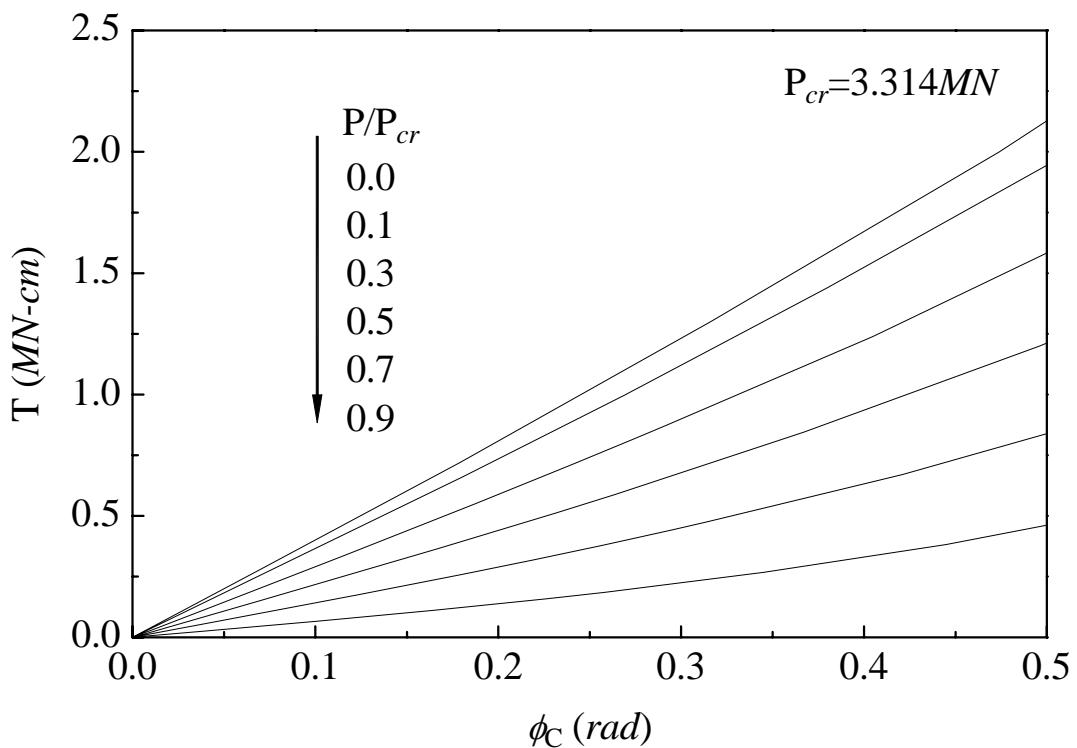
圖二十一 懸臂梁受軸力及扭矩之扭矩-扭轉角曲線圖(斷面 D)



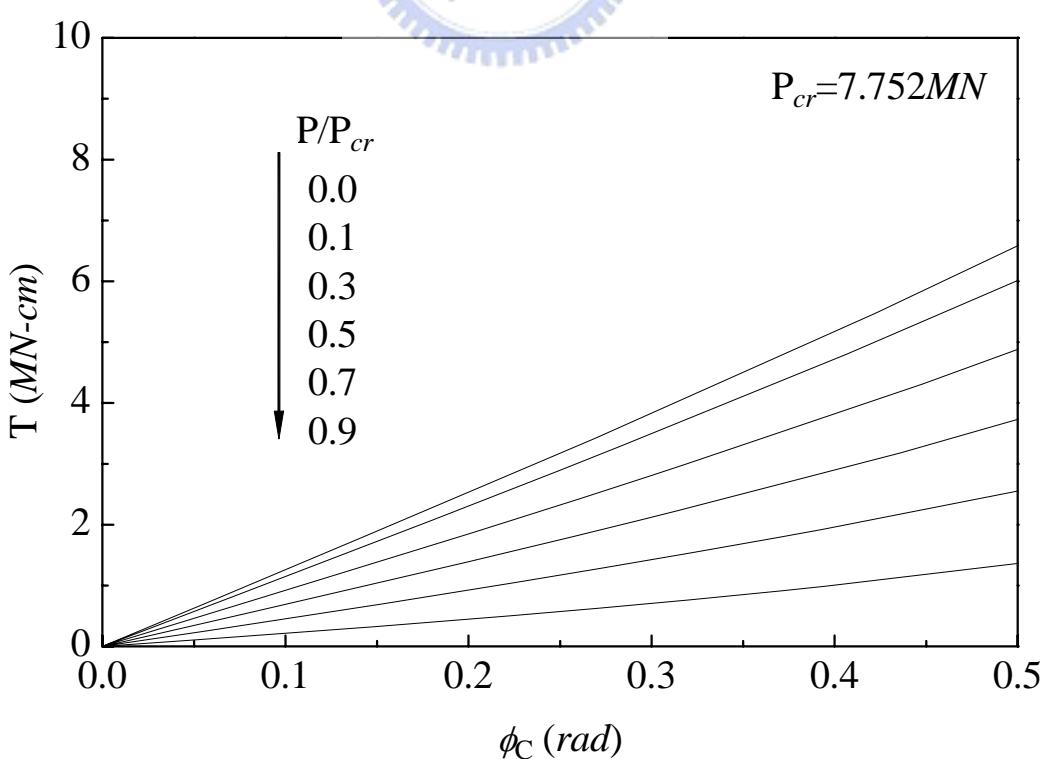
圖二十二 懸臂梁受軸力及扭矩之扭矩-扭轉角曲線圖(斷面 E)



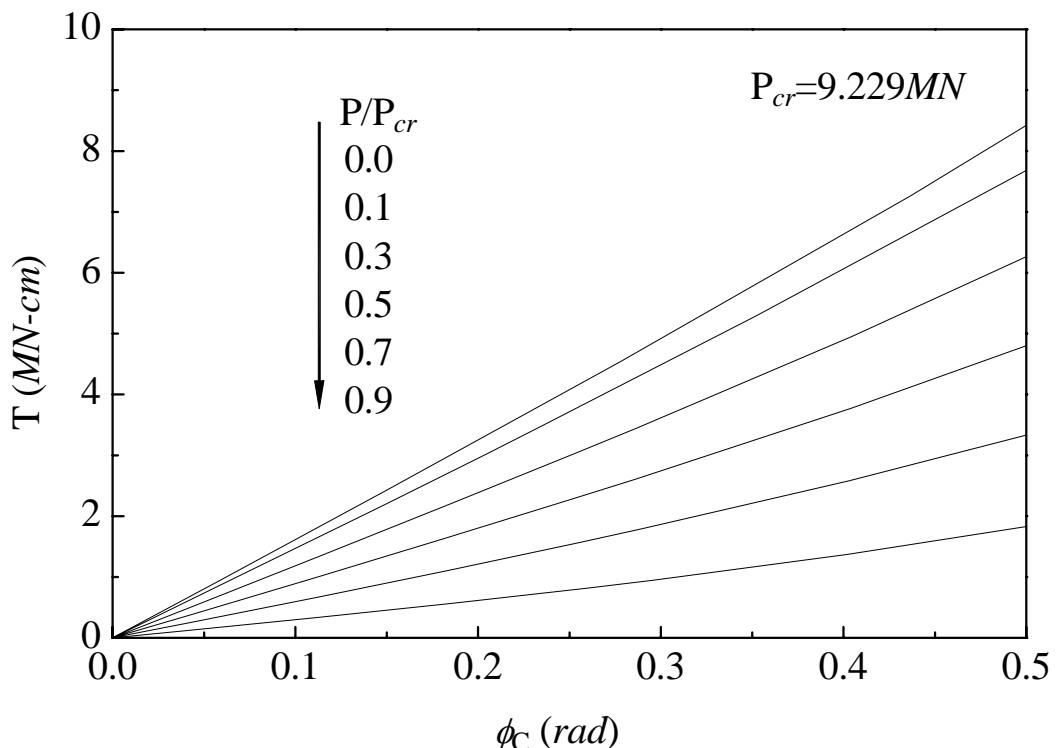
圖二十三 懸臂梁受軸力及扭矩之扭矩-扭轉角曲線圖(斷面 F)



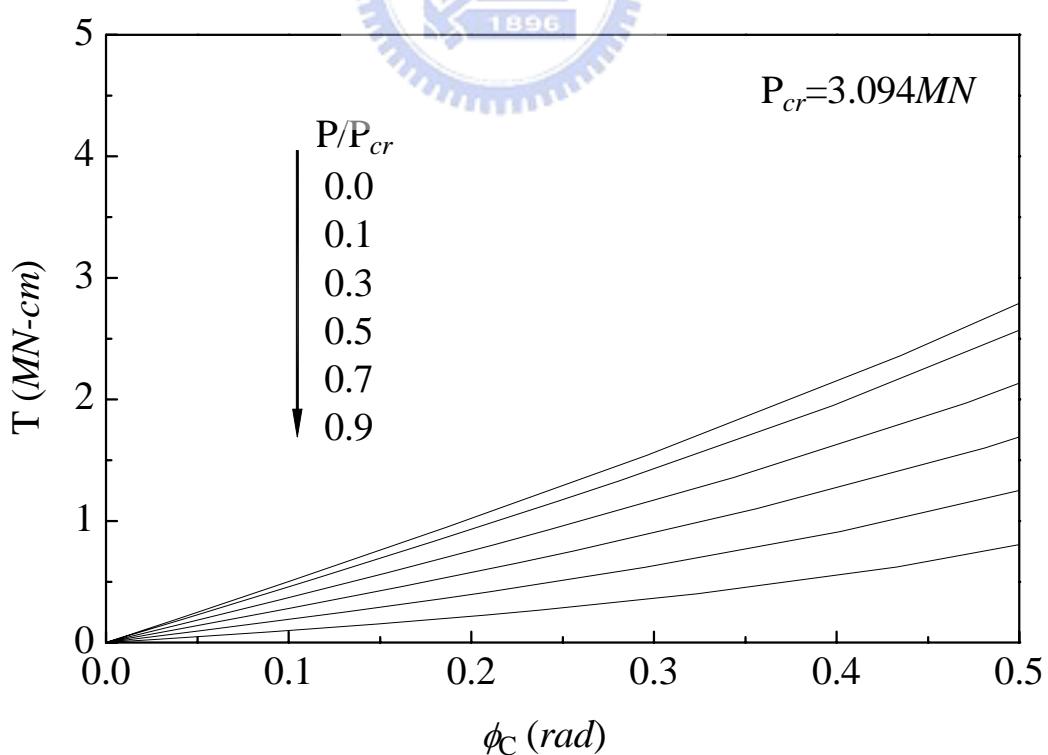
圖二十四 簡支梁受軸力及扭矩之扭矩-扭轉角曲線圖(斷面 A)



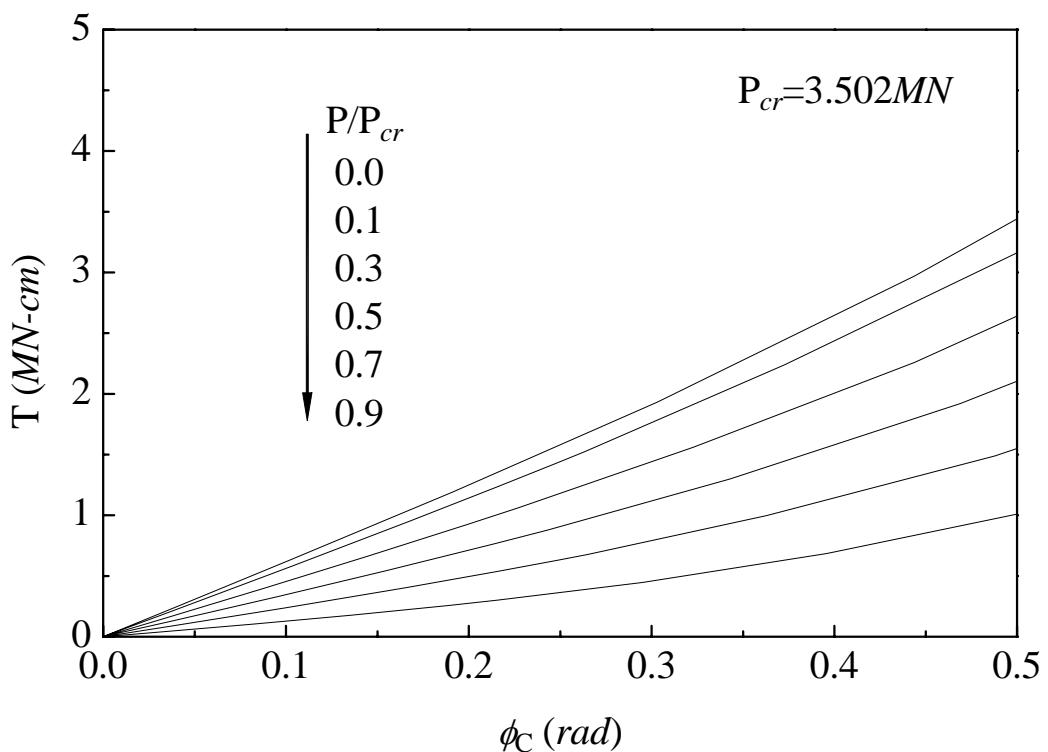
圖二十五 簡支梁受軸力及扭矩之扭矩-扭轉角曲線圖(斷面 B)



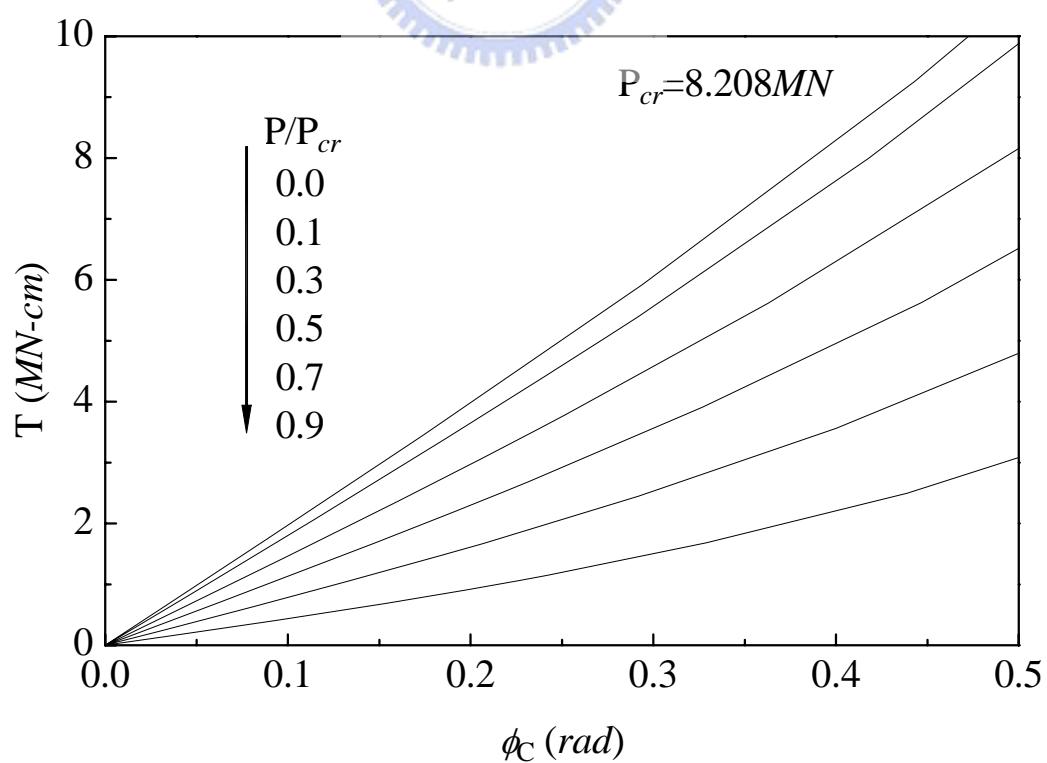
圖二十六 簡支梁受軸力及扭矩之扭矩-扭轉角曲線圖(斷面 C)



圖二十七 簡支梁受軸力及扭矩之扭矩-扭轉角曲線圖(斷面 D)



圖二十八 簡支梁受軸力及扭矩之扭矩-扭轉角曲線圖(斷面 E)



圖二十九 簡支梁受軸力及扭矩之扭矩-扭轉角曲線圖(斷面 F)