

# 山形鋼の座屈特性

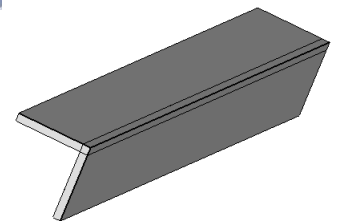
環境構造工学講座  
06641 畑中裕志

始めに

二酸化炭素削減

↓  
応急橋(木材利用の見直し)

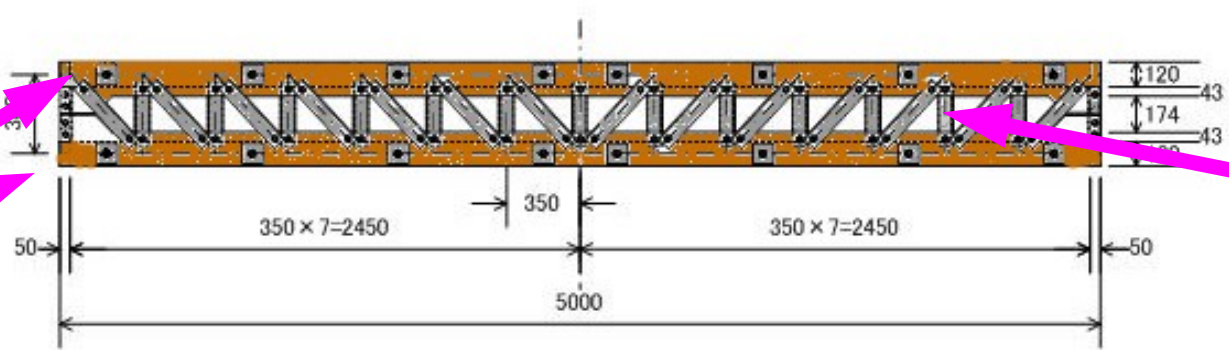
↓  
新しい木・鋼複合橋



山形鋼

↓  
座屈

木床板



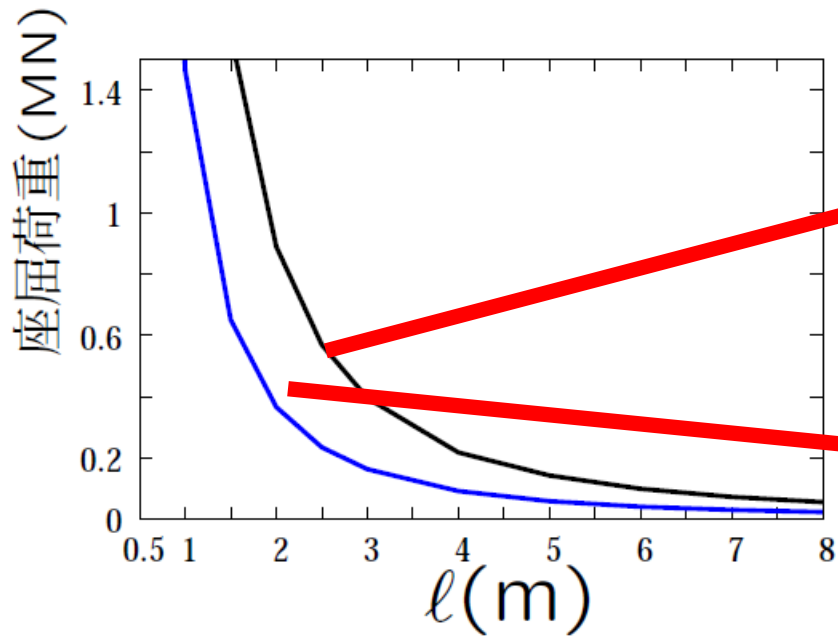
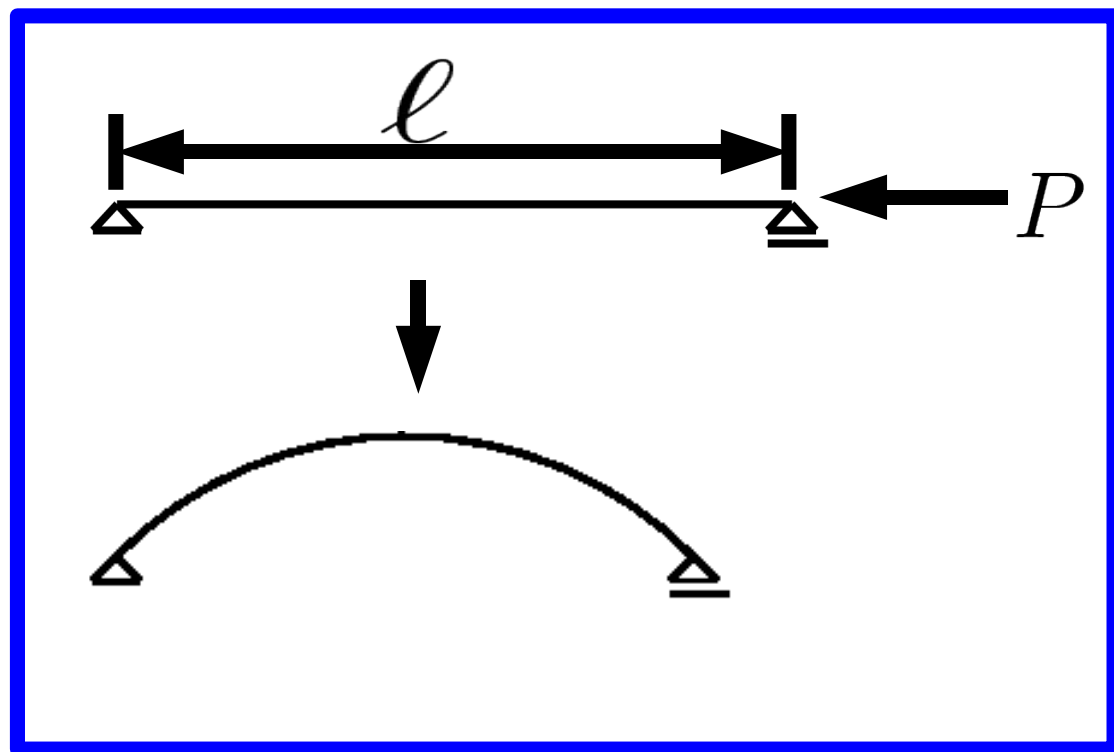
# オイラーの座屈公式

ヤング率      断面二次

$$P_{cr} = \left(\frac{\pi}{l}\right)^2 EI$$

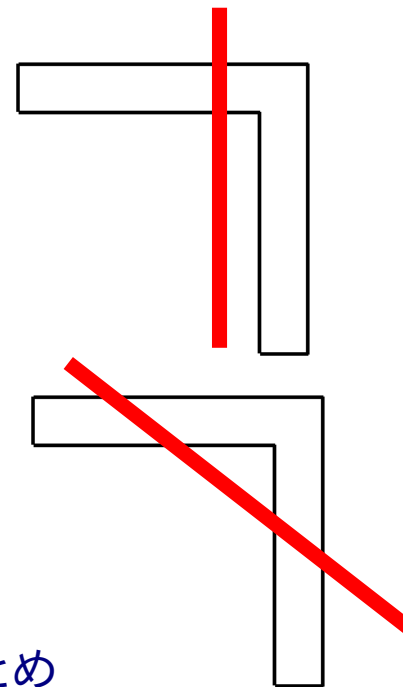
↑  
座屈荷重

↙  
軸方向長さ



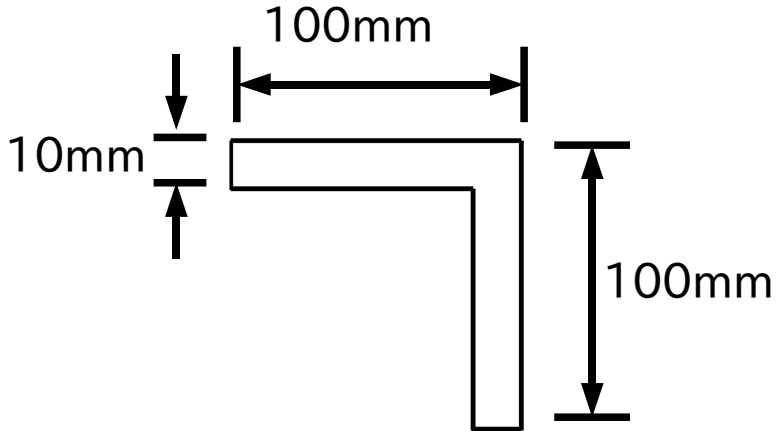
オイラー  
(中立軸)

オイラー  
(最小軸)

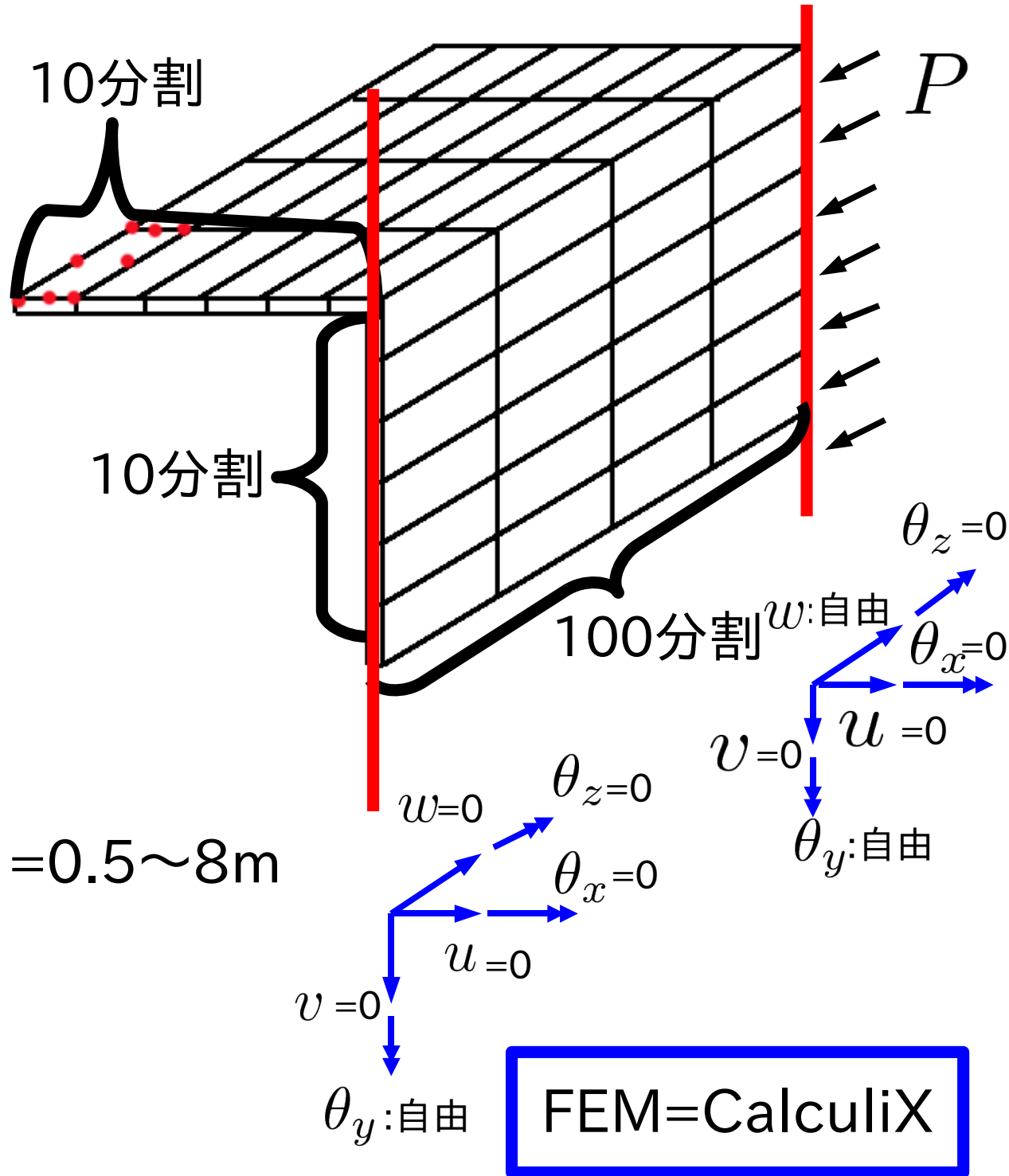
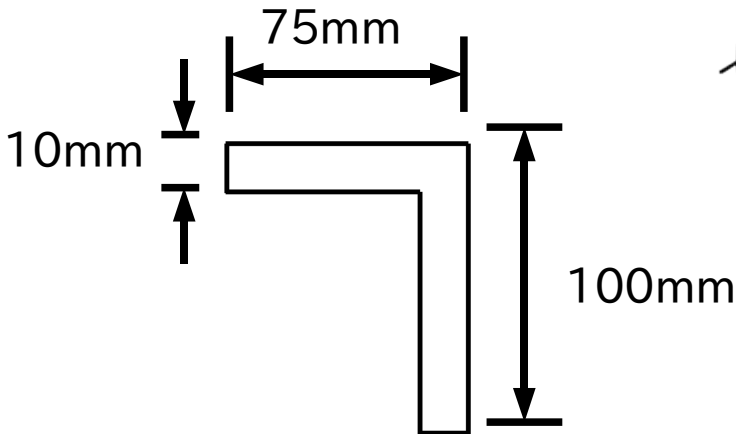


# 解析モデル

等辺山形鋼

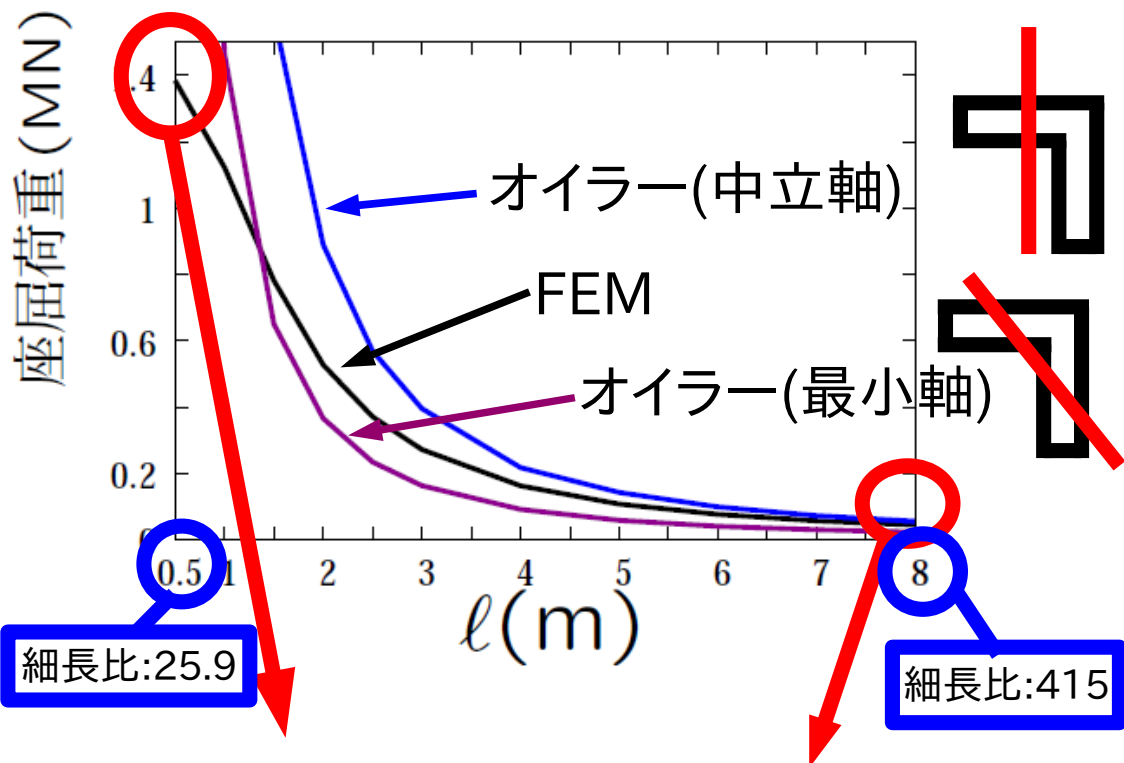


不等辺山形鋼

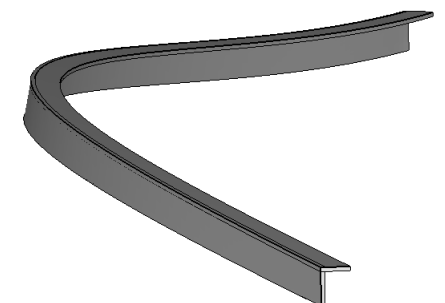
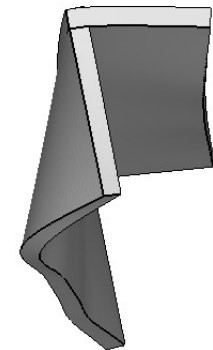
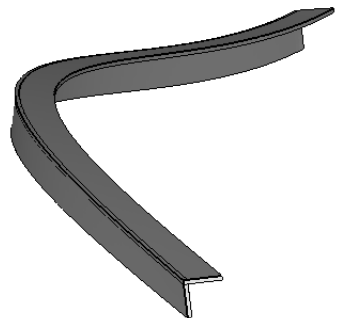
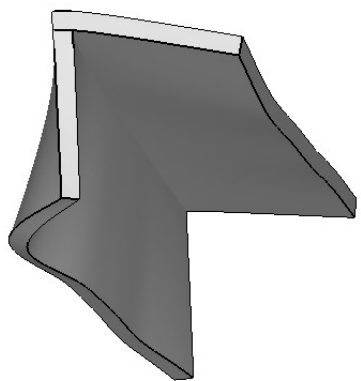
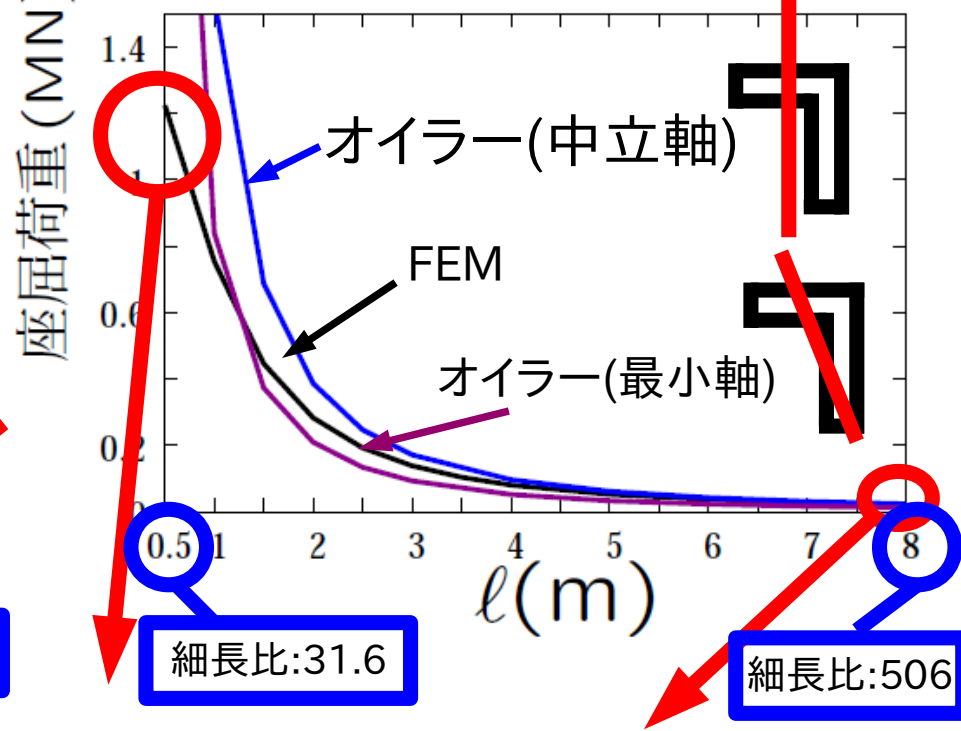


# 解析結果

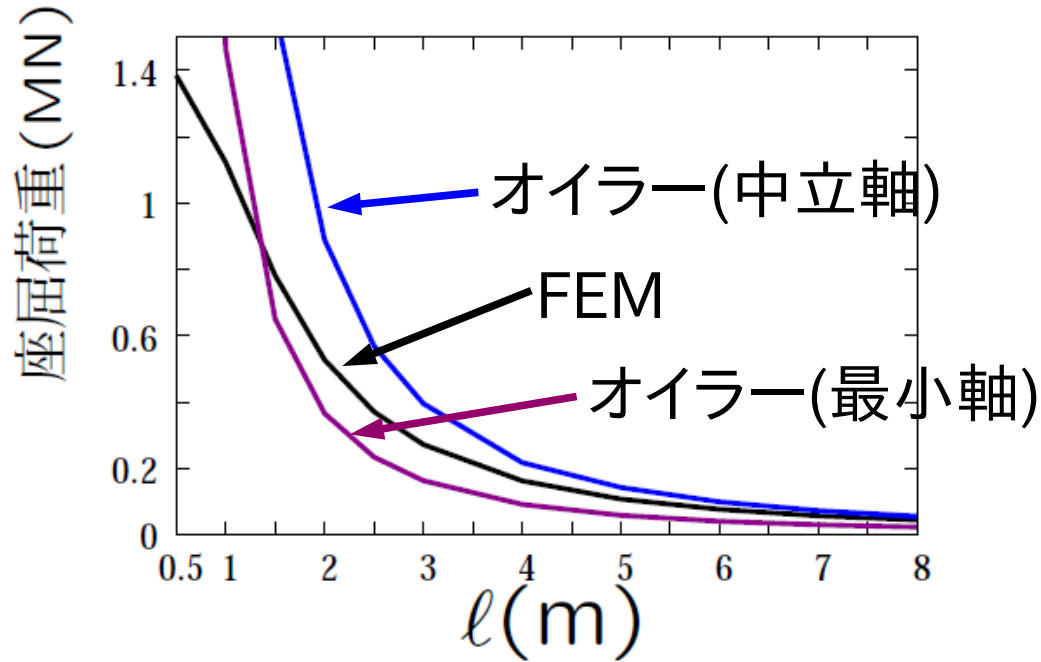
## 等辺山形鋼



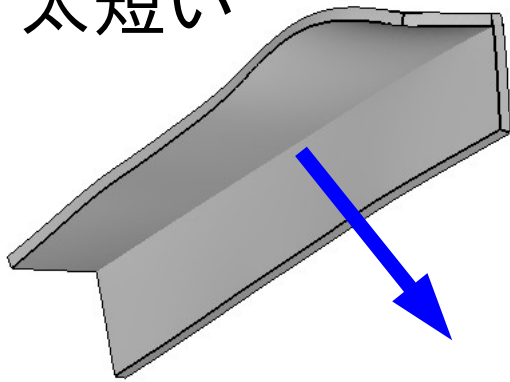
## 不等辺山形鋼



# まとめ



太短い



局部座屈に注意

細長い

