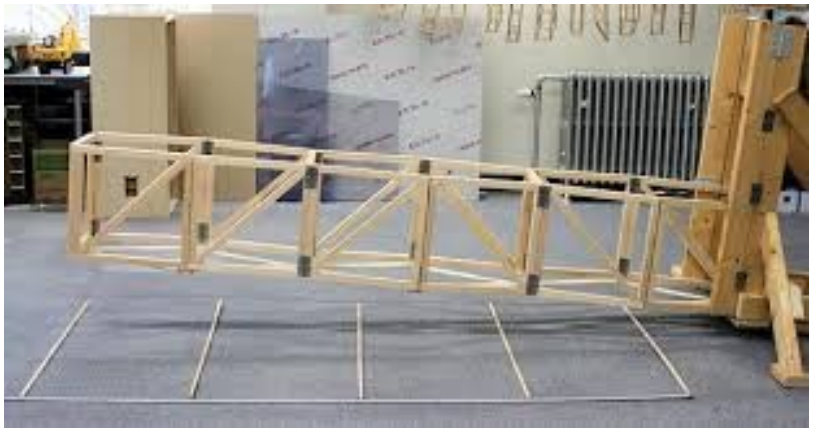
木製応急部材の展開時の力学挙動

7016817 グエン アイ

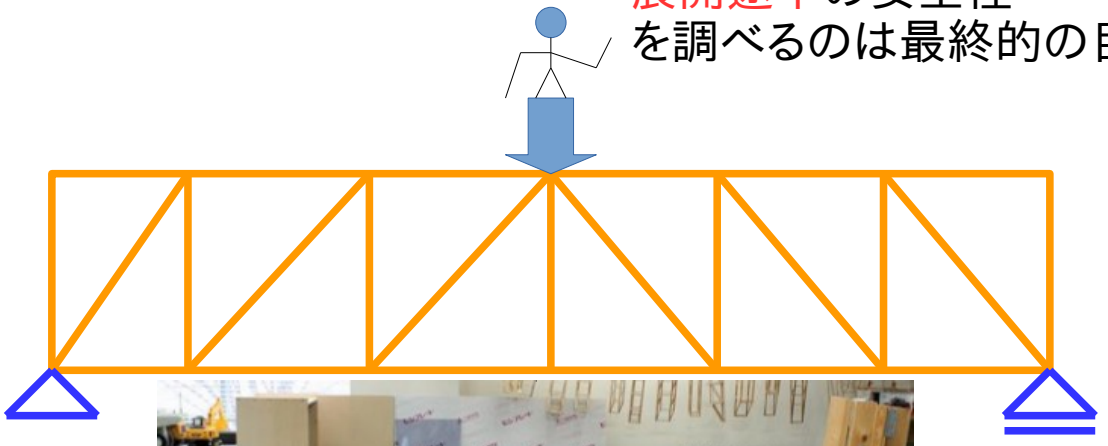
背景. 目的

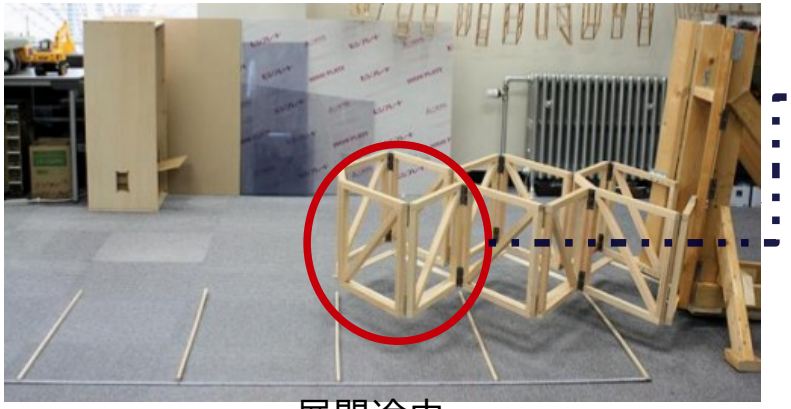


展開完了

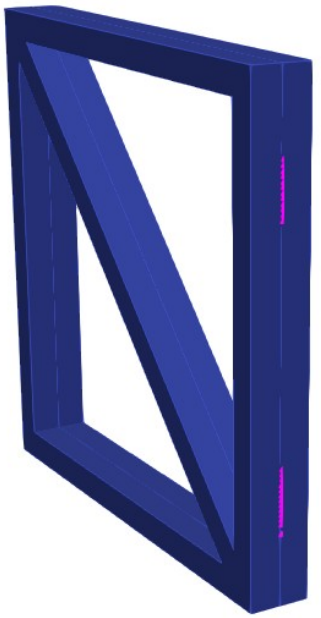
展開途中の安全性
を調べるのは最終的の目標

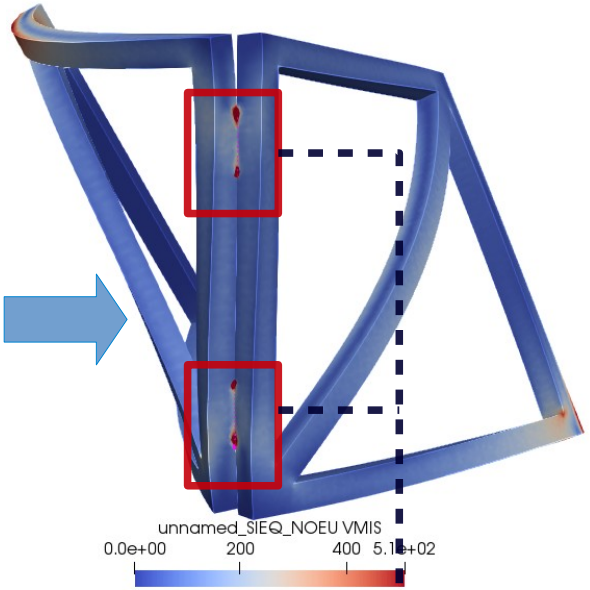
今回は基礎研究





展開途中

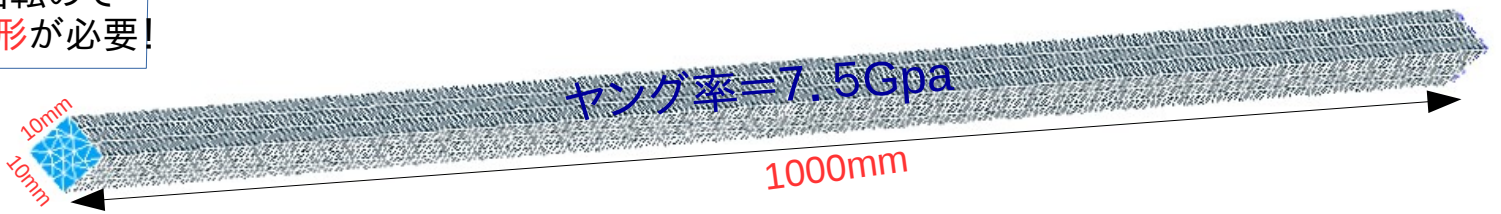


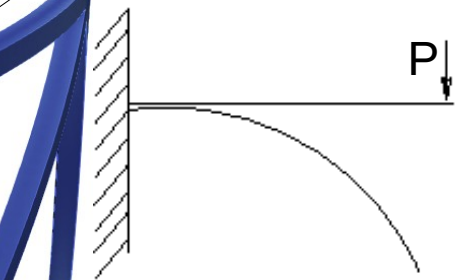


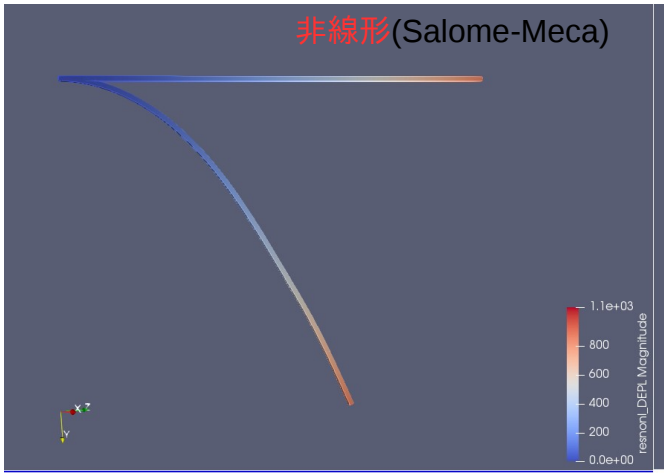
応力状態を調べる研究

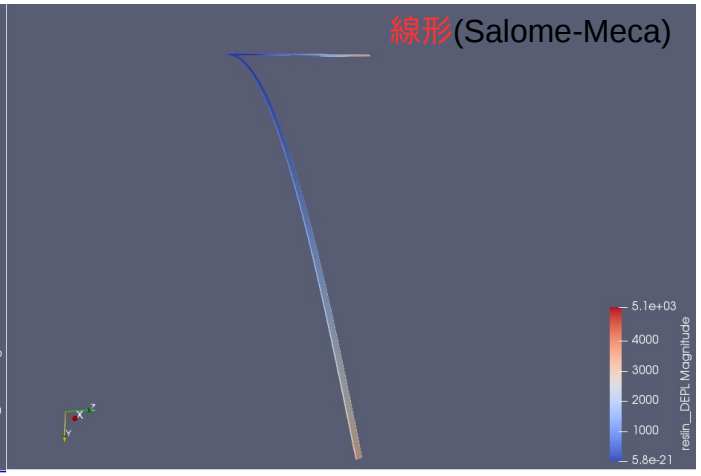
エラスティカ問題

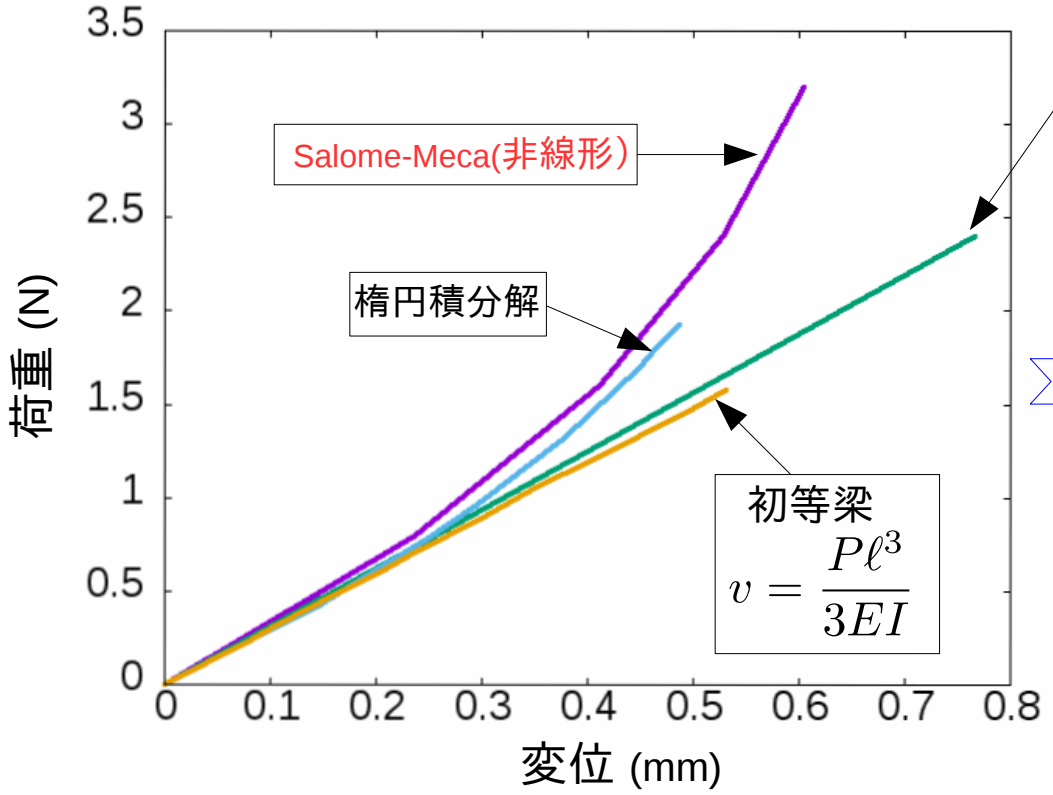
大変位，大回転で
幾何学非線形が必要！











Salome-Meca

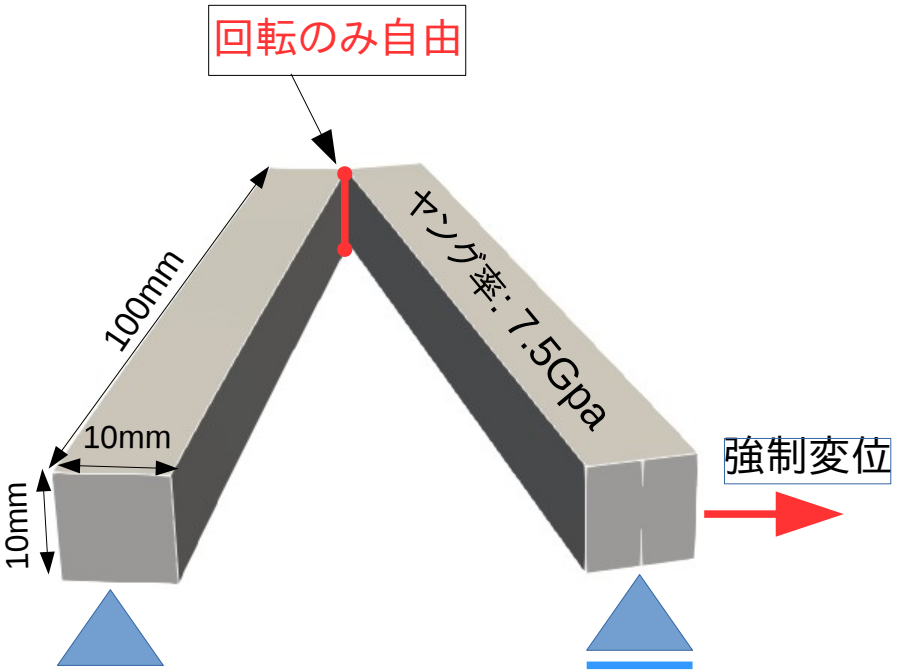
↓

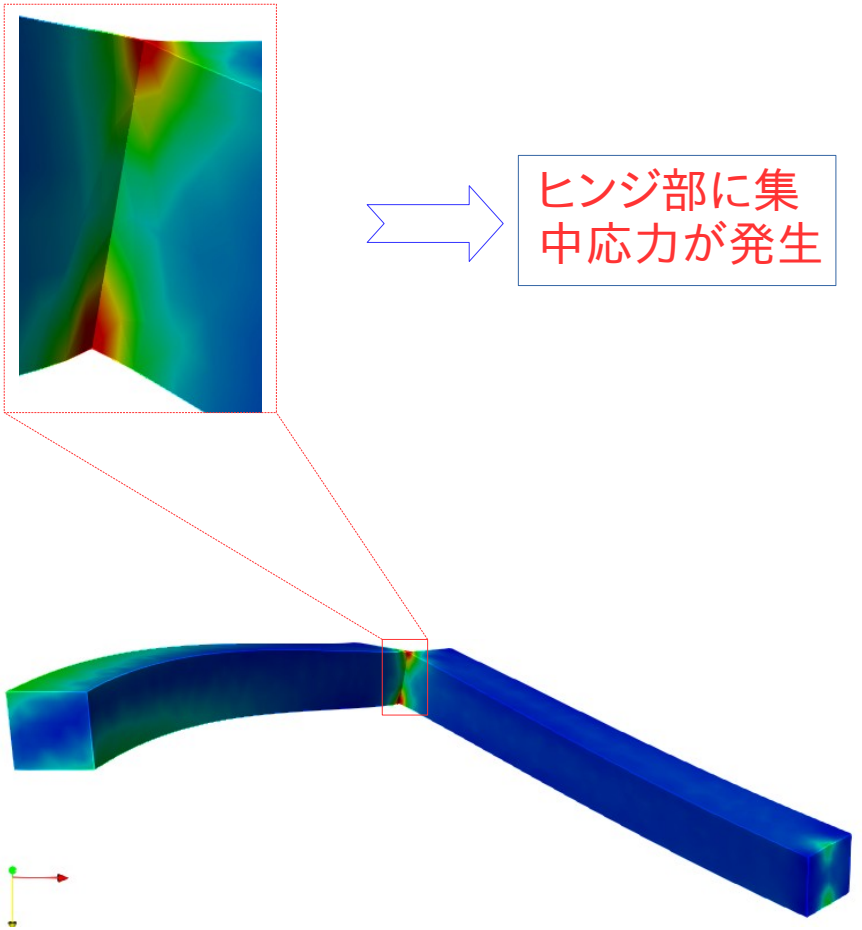
大回転を伴う非線形解析

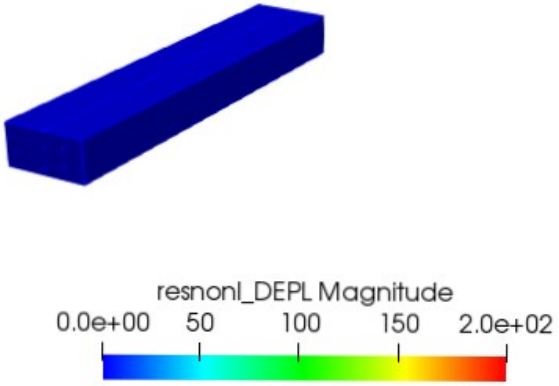
↓

適切に解析できる

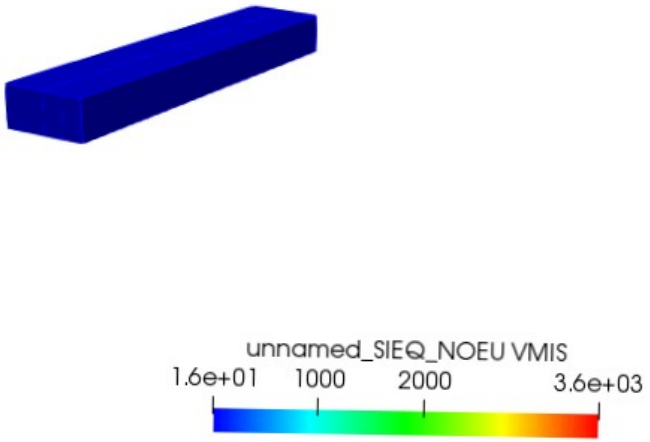
ヒンジで接合された2部材の展開





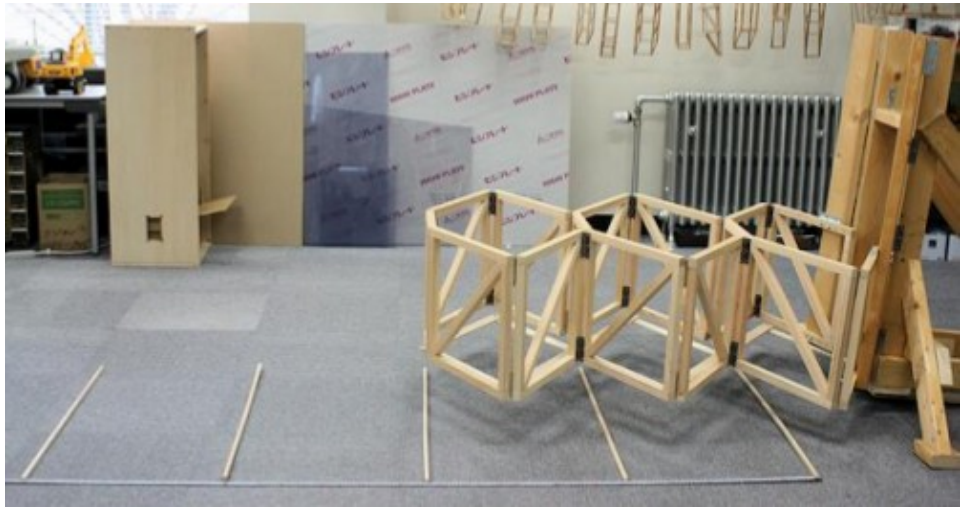


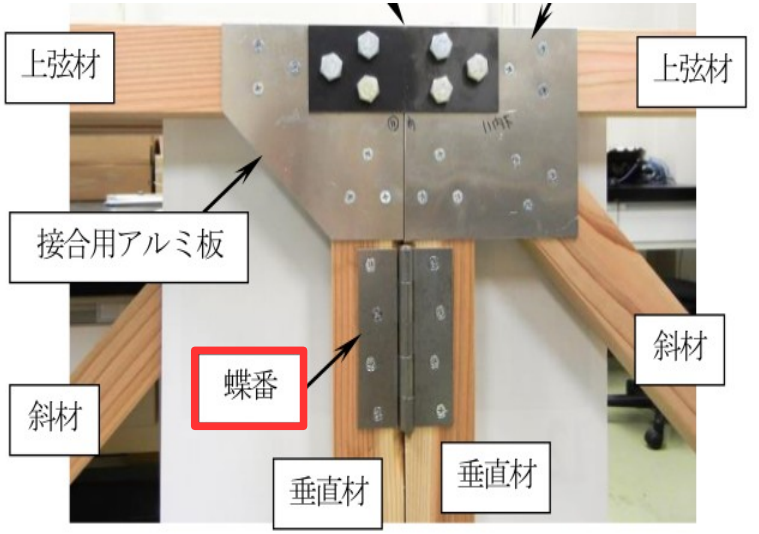
自重なし

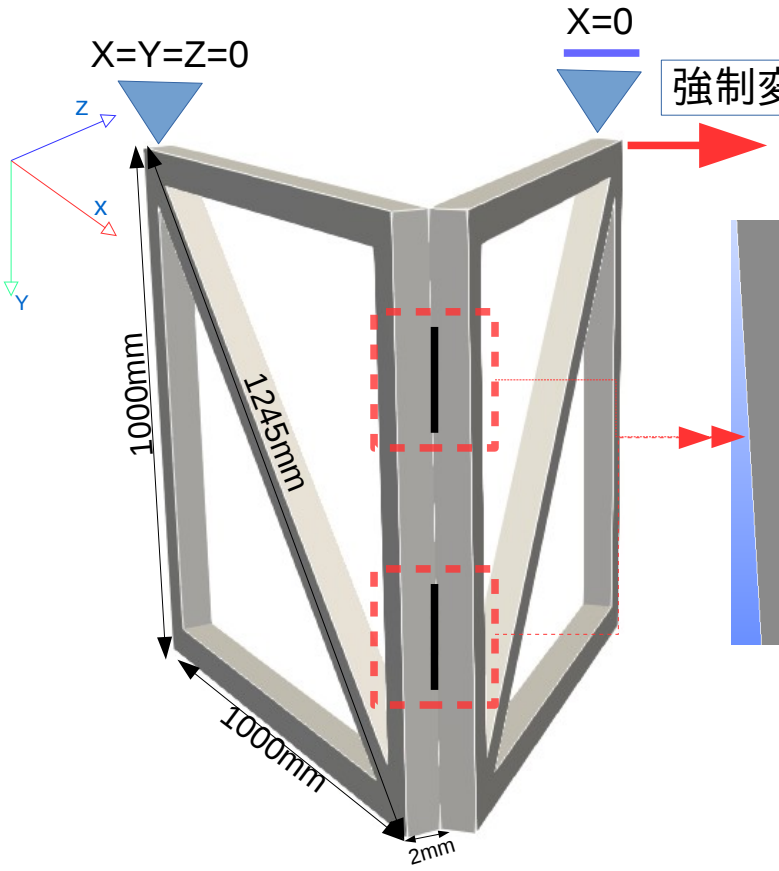


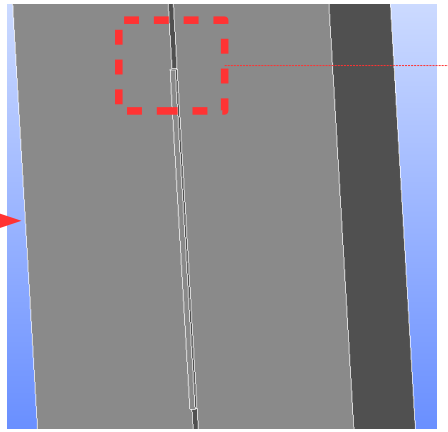
自重あり (比重10)

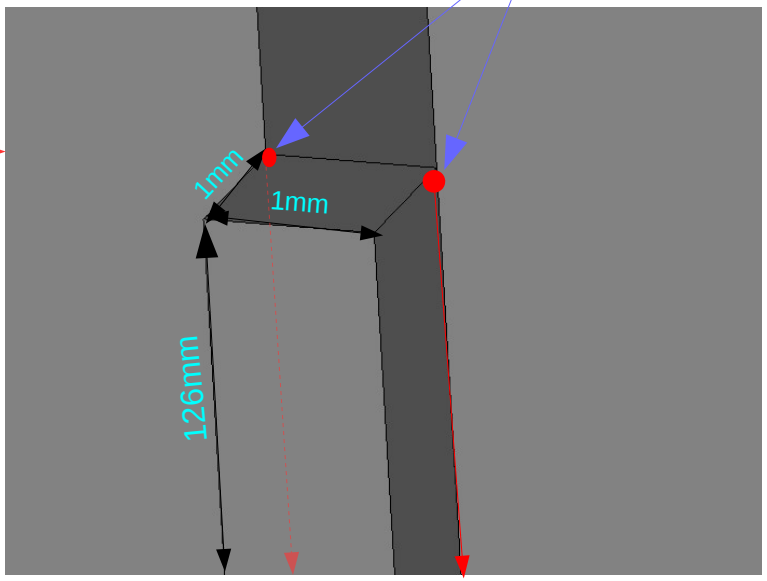
蝶番で連結されたトラスパネル



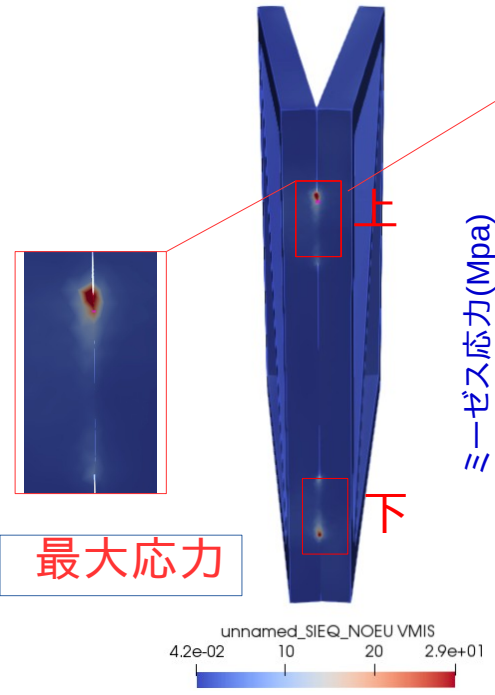




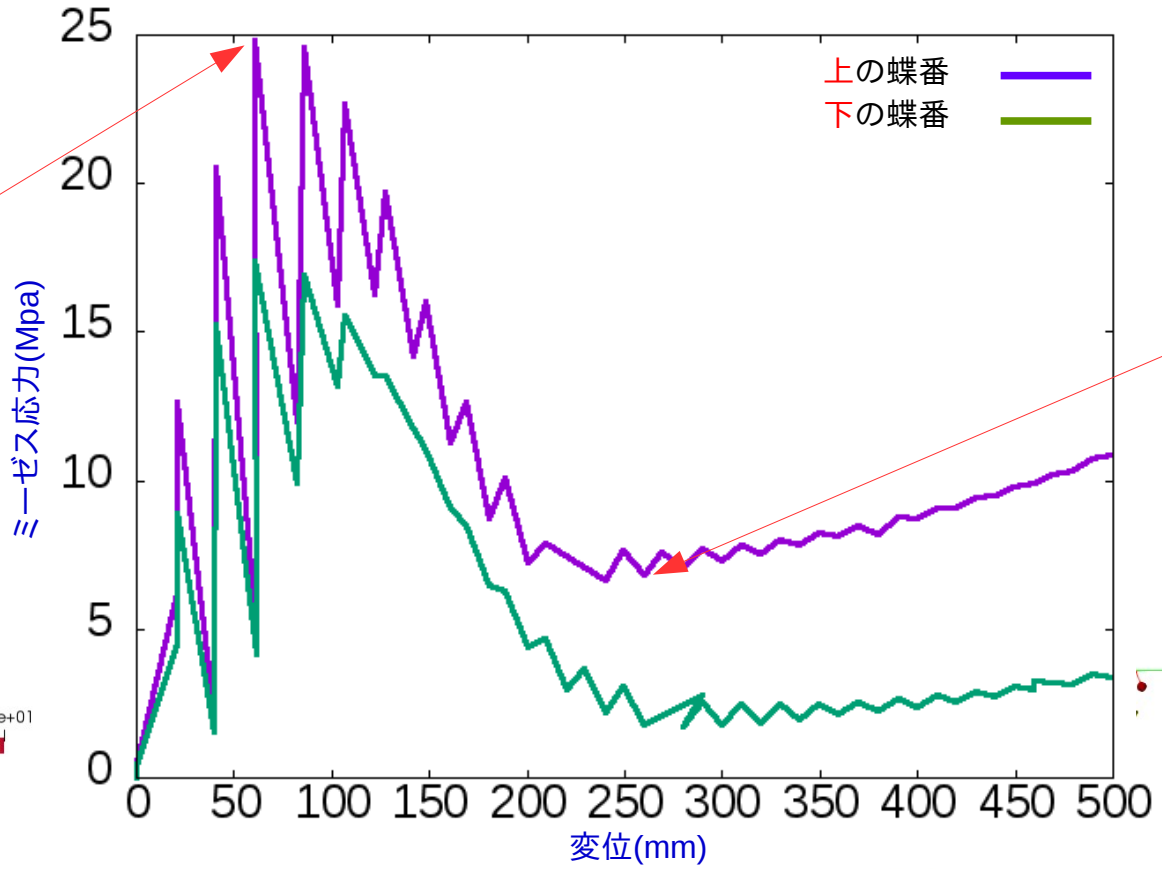


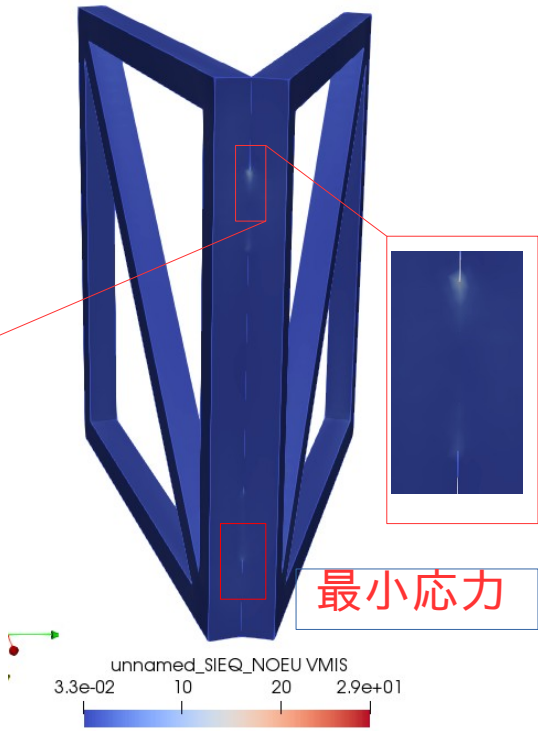


解析の結果



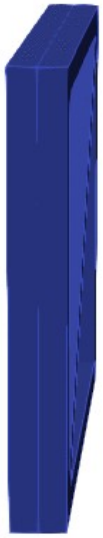
最大応力





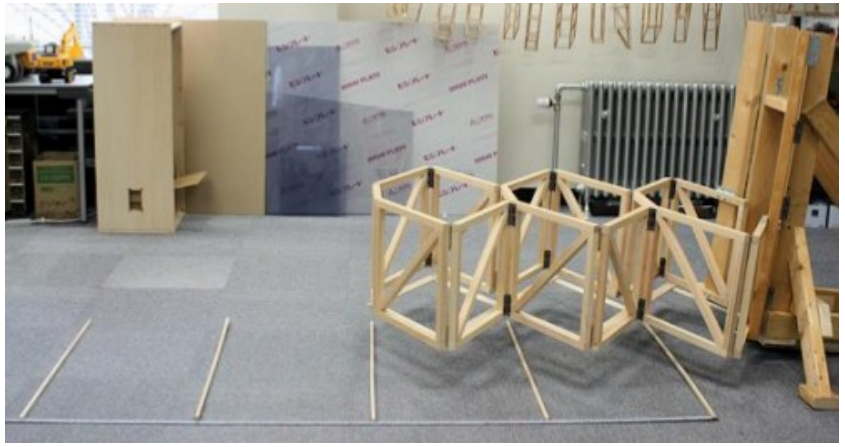
最小応力

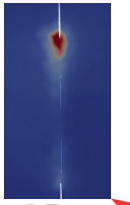
自重なし

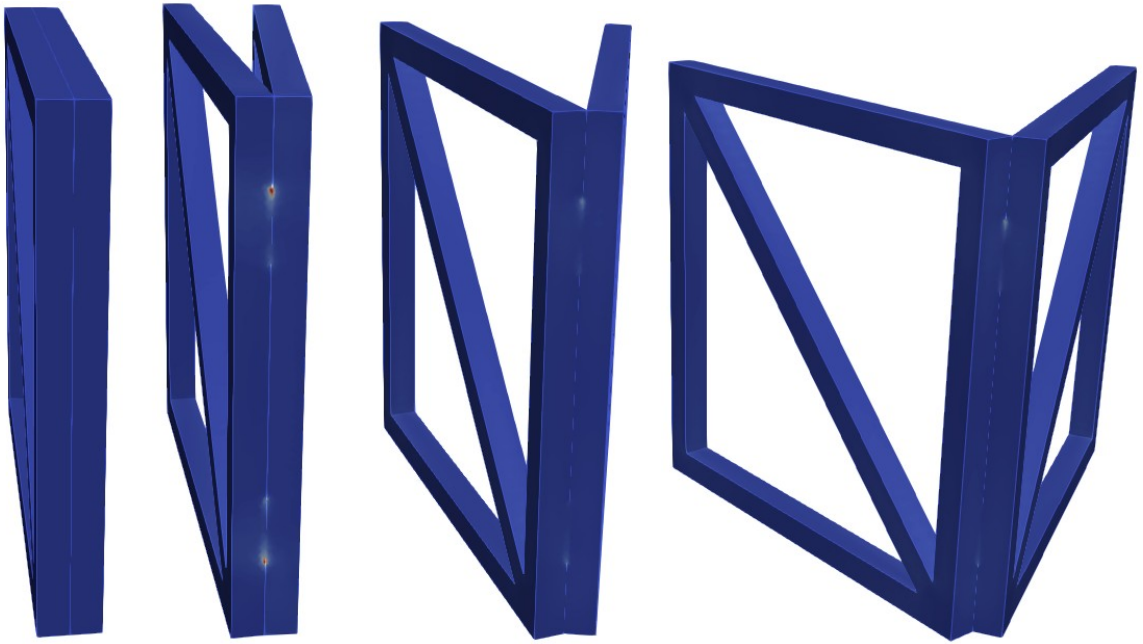


自重あり(比重0.4)

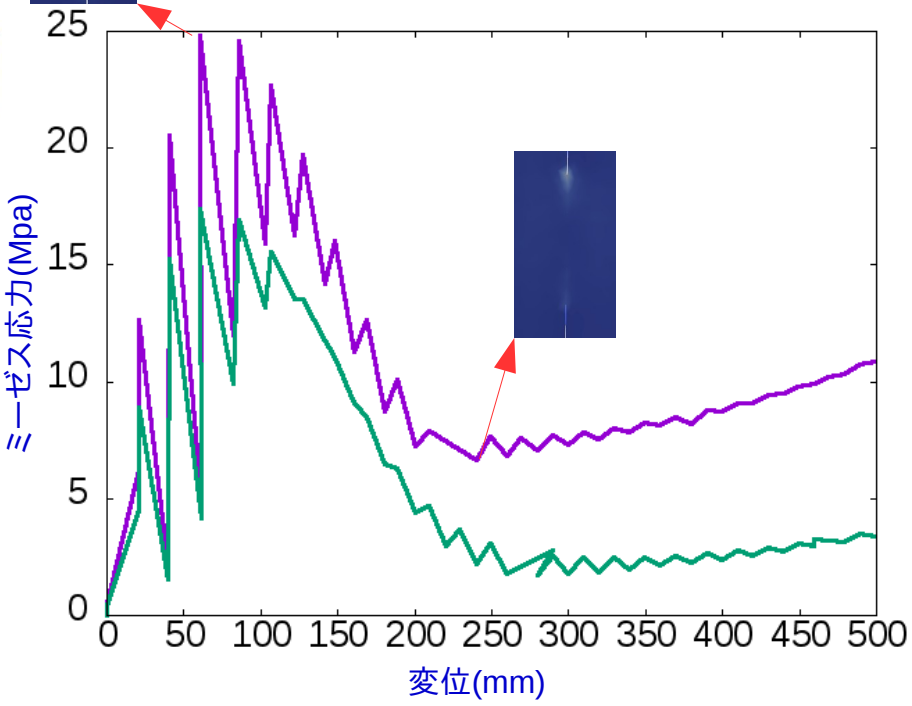
まとめ







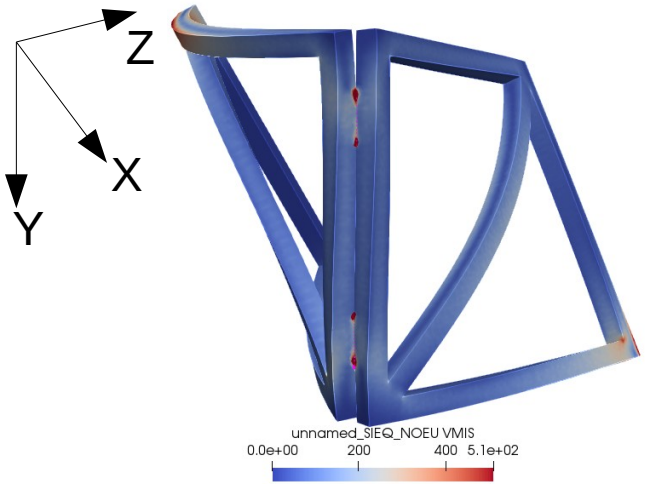
開始　最大=危険　最小　完了



2枚パネルの展開途中の危険箇所を確認できた

今後，全体モデルの挙動解析への応用を検討

質問用のスライド



X,Y#0