

Monday, September 26, 2016

Strength S, S_y, S_u

- property of the material and
the geometry

Stress σ τ
↳ normal ↳ shear stresses

- property of state of the
element of interest, depends on
loading, geometry

Max stress \ll Strength

Factor of Safety = $\frac{\text{Strength}}{\text{max stress}}$

$\equiv \frac{\text{loss of function parameter}}{\text{max allowable parameter}}$

designfactor : pre design target for
my final factor of safety

ensure $FoS > DF$
 ↑ ↑
 actual target

DF

look for goals

- standards and codes
- institutional knowledge (experience)
- testing