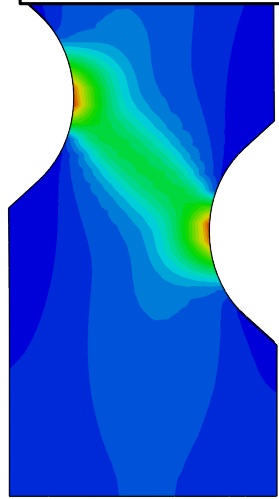


Initial guessed  
parameters

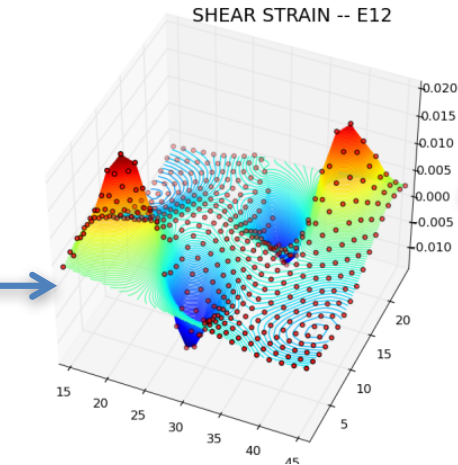
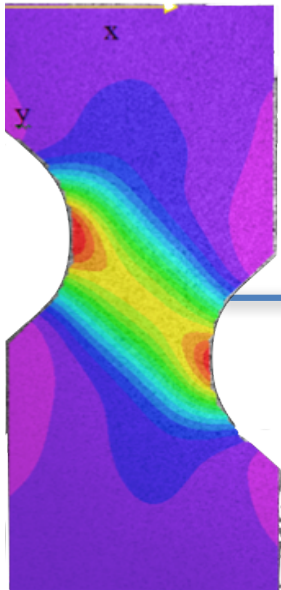
User material  
subroutine



FEA



Full-field measurements



FEA grid interpolation

Updated guessed  
parameters

Sensitivity analysis  
Genetic algorithm

$p^{i+1} = p^i + \Delta p$   
(Genetic selection +  
Levenberg-Marquardt)

Cost function

$C(p) = \frac{1}{2}$

# Identification algorithm

$$S = \frac{\partial \epsilon(p)^{num}}{\partial p} := \begin{bmatrix} \frac{\partial \epsilon_x}{\partial p} \\ \frac{\partial \epsilon_y}{\partial p} \end{bmatrix}$$

Minima?  
(Stationary condition)

$$\sum_{t=t_1}^t C(p)^{i+1} - C(p)^i < \epsilon$$

No

Yes

Identification loop

Identified  
parameters