

Continuum Elastoplasticity - Finite Strain

Bending example

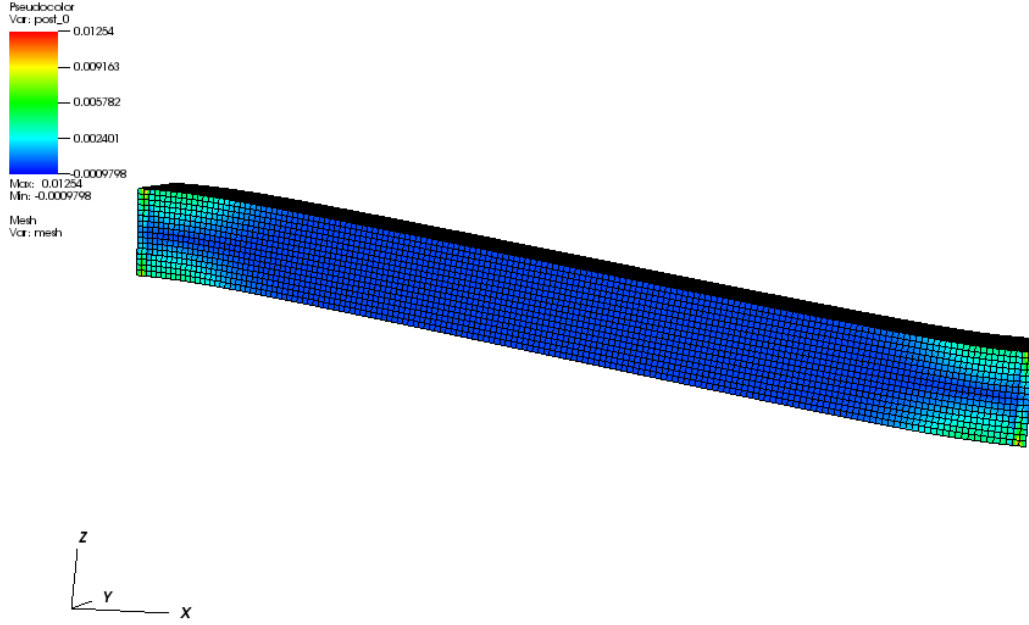


Figure 1: Deformation scaled by $10\times$.

Domain: $10 \times 1 \times 1$

Mesh: $160 \times 16 \times 16$.

Boundary conditions: $\mathbf{u} = 0$ at $x_1 = 0$; $\mathbf{u} = -0.1\mathbf{e}_3$ at $x_1 = 10$.

Parameter	Value
Lamé constant λ	100.6582e9
Lamé constant μ	45.6473e9
Yield stress	33.014025e6
Linear hardening coefficient	2.0259e9
Basis function order	1
Quadrature order	2
Pseudo-time steps	100