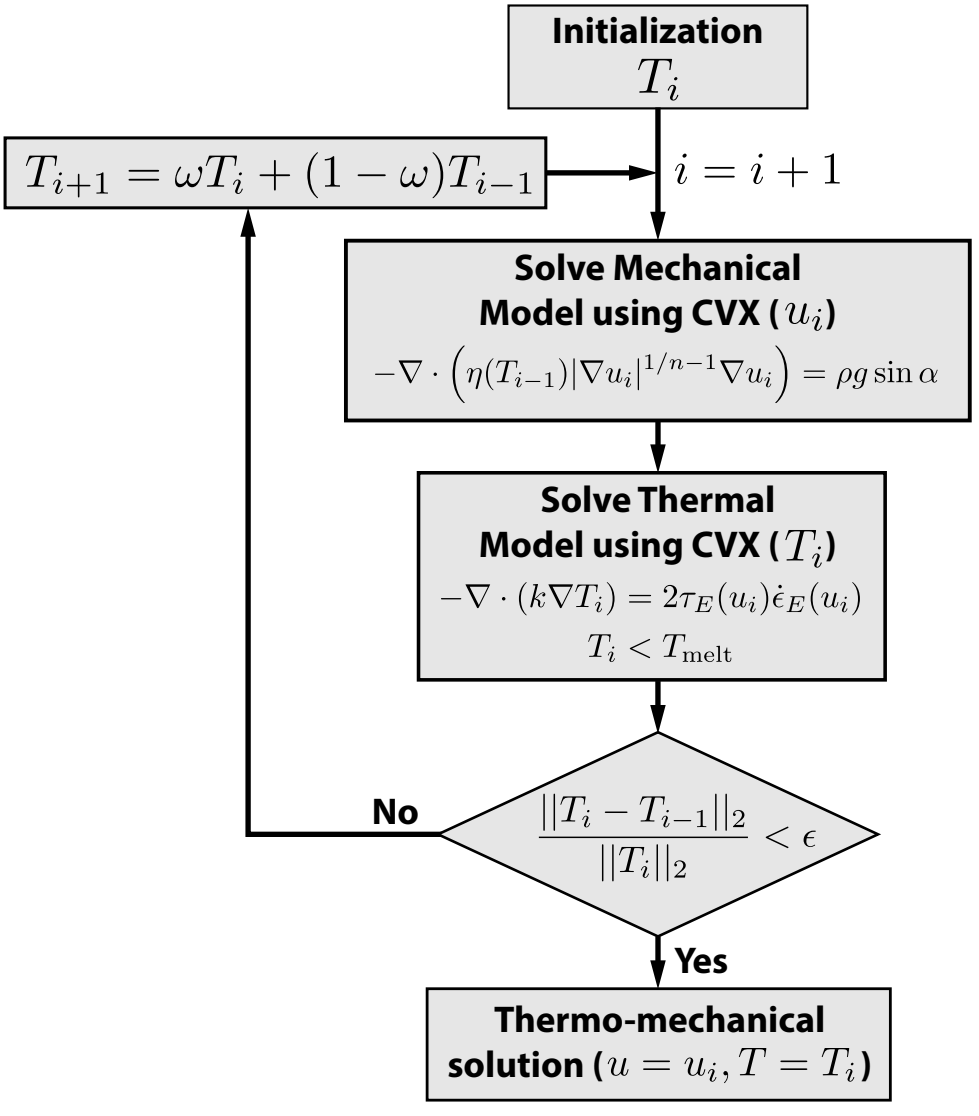

Initialization
$T_i$
$T_{i+1} = \omega T_i + (1-\omega) T_{i-1}$
$i = i + 1$
Solve Mechanical
Model using CVX ($u_i$)
$-\nabla \cdot \left( \eta(T_{i-1}) |\nabla u_i|^{1/n-1} \nabla u_i \right) = \rho g \sin \alpha$
Solve Thermal
Model using CVX ($T_i$)
$-\nabla \cdot (k \nabla T_i) = 2\tau_E(u_i)\dot{\epsilon}_E(u_i)$
$T_i < T_{\text{melt}}$
No
$\frac{||T_i - T_{i-1}||_2}{||T_i||_2} < \epsilon$
Yes
Thermo-mechanical
solution ($u = u_i, T = T_i$)