

Equation  $\frac{1}{2} \frac{d|u_k|_2^2(t)}{dt} + \int_{\Omega} |\nabla u_k|^p - \sigma_{\varepsilon} \lambda \int_{\Omega} u_k = 0$  Case p=1.  
Analysis for img 2.  $\sigma = 0.1$ .

