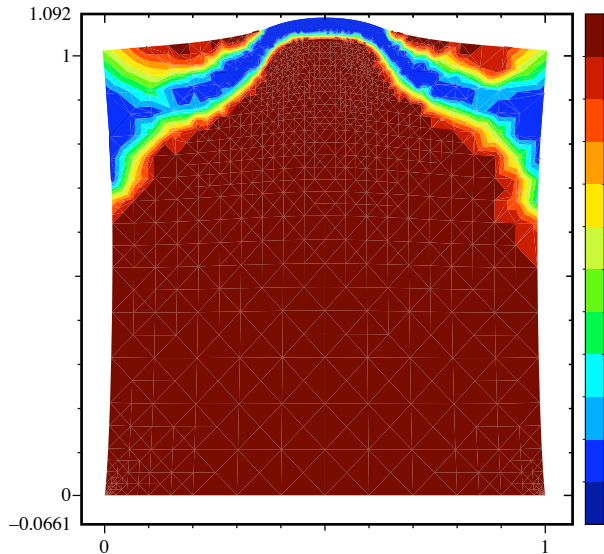


# Motivation & Applications for Relaxed (Convexified) Problems

## ● Phase Transitions

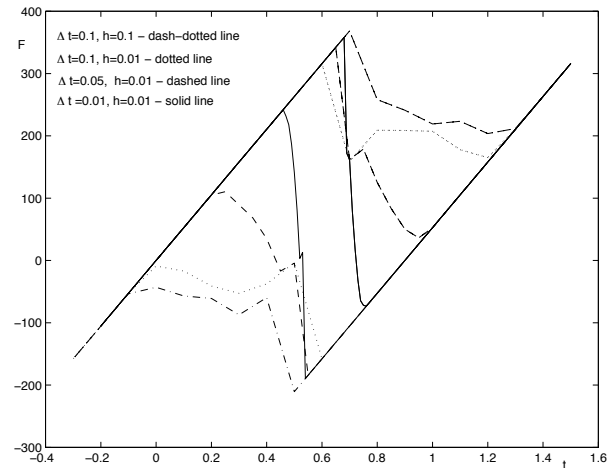
[C. & Plechac, SINUM 2001]

$\text{YB}_2\text{Cu}_3\text{O}_{6+x}$  tetrag.  $\rightarrow$  monocl.



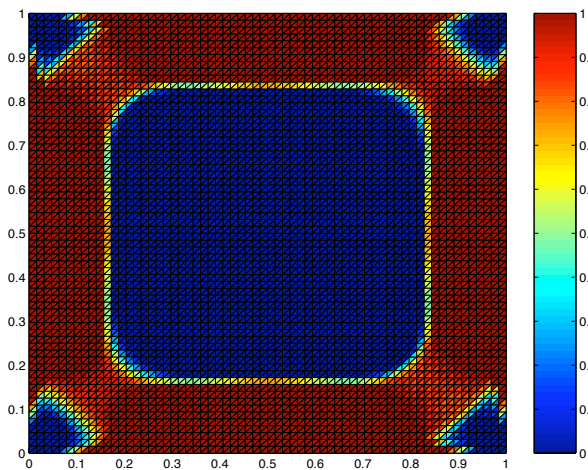
## ● Hysteresis

[C. & Plechac 2001]



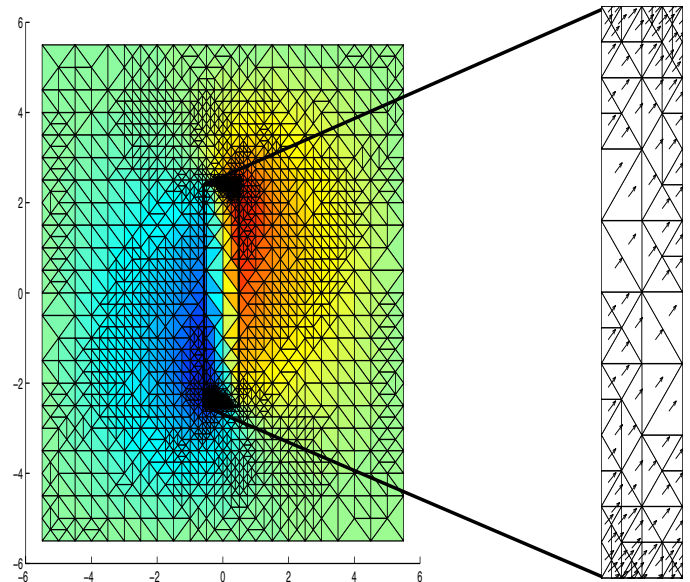
## ● Optimal Design

[C. & Plechac 1999]



## ● Micromagnetics

[C. & Prohl, Numer Math 2001]



## ● Finite Plasticity

[Ortiz & Repetto, J Mech Phy Sol 1999;

C. & Hackl & Mielke, Proc Roy Soc A 2002]