

Rigidity and non-Rigidity for Cubic-to-Tetragonal Phase Transition in GL Thin Film Theory

Lauro Morales Montesinos &
Dr. Antonio Capella Kort

Universidad Nacional Autónoma de México
Instituto de Matemáticas

June 3th, 2016

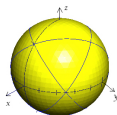
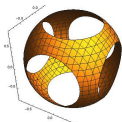


Suppose

A thin film of a material that undergoes cubic-to-tetragonal phase transitions; e^3 is normal to the film. These transitions are due to small deformations.

Points to discuss

- How do Martensite phases look?
- Is austenite - martensite twinning possible?
- Are triple Junctions admissible structures?
- What about Crossing twins?
- Does exist any structural rigidity result?



It was found

- Directions where A-M twins, triple junctions and crossing twins are admissible.
- At least a family where admissible structures are very rigid.