

Thesis outline

1. Biblio
 - may be changed to partial biblio as each chapter intro, depending on the total number of chapters
2. Energy resolution temperature with tabulations
 - basically similar to the HvsT article's structure
3. Couple with fluid mechanics and solute balance: no shrinkage
 - Talk about freckles in general (maybe talk about Fe-C-Cr freckles from HvsT article)
 - Freckles' Experiment
 - FE simulation without shrinkage
 - CAFE simulation without shrinkage
 - discussions (+ref to article freckles ?)
4. Couple with fluid mechanics and solute balance: with shrinkage
 - density tabulation
 - SMACS FE simulation with shrinkage
 - with CAFE ?? (if we want to keep a consistent layout of ideas)
5. Shrinkage with a deformable solid ?
6. Application to TEXUS

PS: if I do not have enough time to go Chapter 5 (solid velocity >0), I will keep chapters 3 and 4 as they are (no merge), therefore I will speak about Thercast in chapter 4. Application to Texus will be chapter 5 in this case

In contrast, if we can do the deformable solid case, then I will merge chapters 3 and 4 in one chapter (called chapter 3), and therefore chapter 4 will contain the coupling with Thercast and deformable solid with shrinkage , and chapter 5 will talk about the comparison with TEXUS

To sum up, we should have maximum 5 chapters without the conclusion chapter.