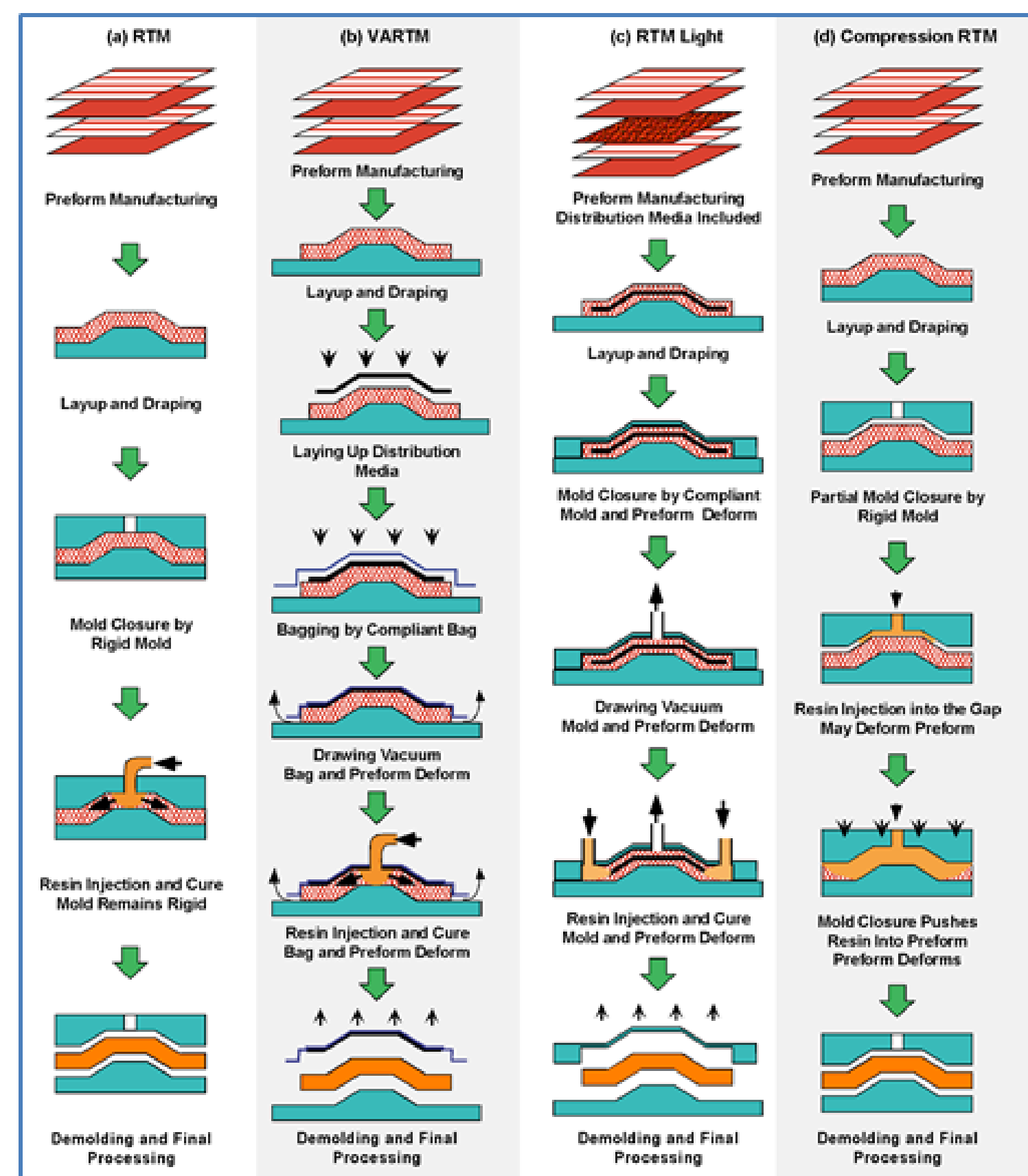


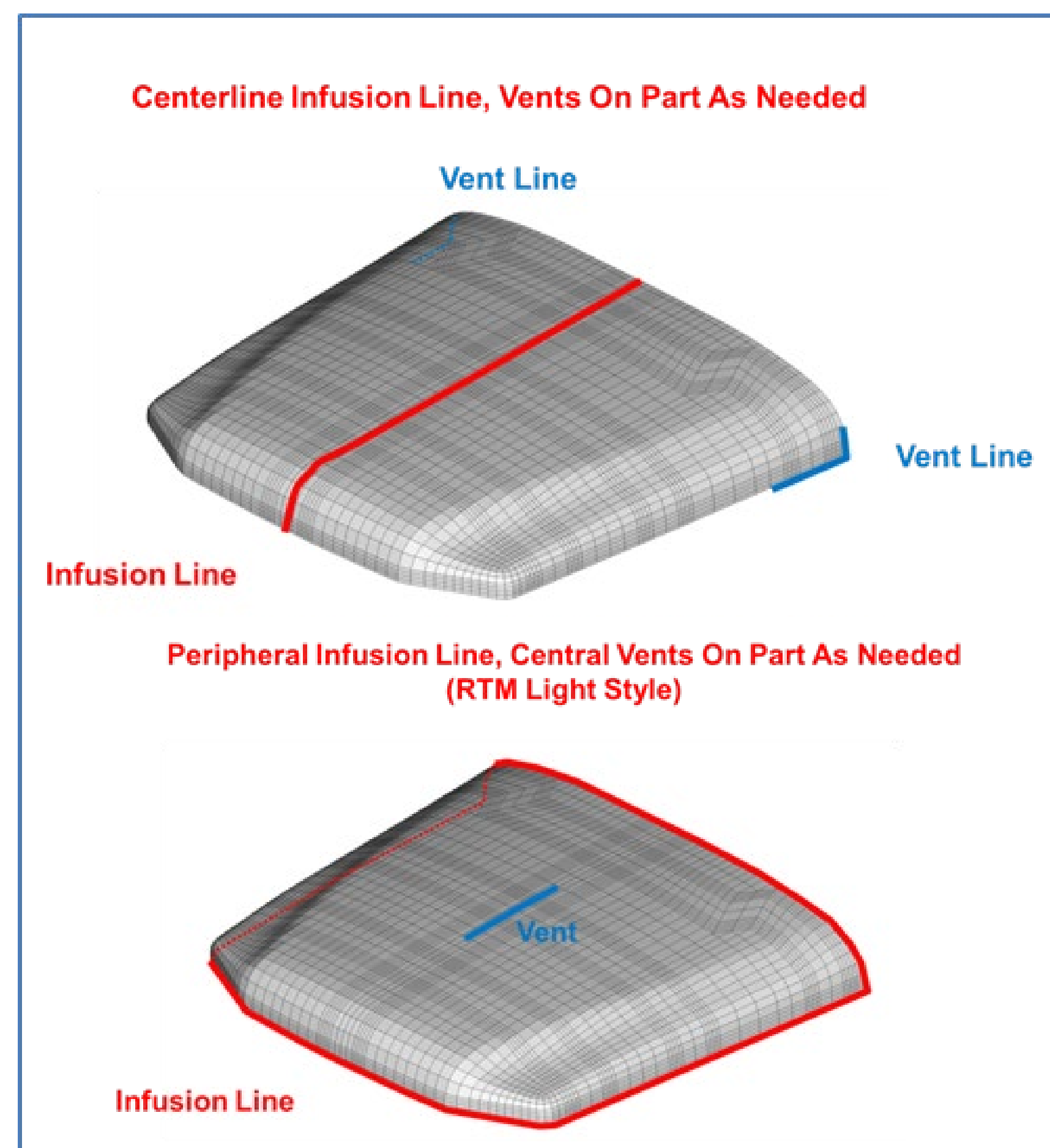
Dr. Pavel Šimáček¹ and Prof. Suresh G. Advani^{1,2}
 University of Delaware | Center for Composite Materials¹ | Department of Mechanical Engineering²

Why Do We Model Resin Infusion?

1. There Are Many Process Variants:



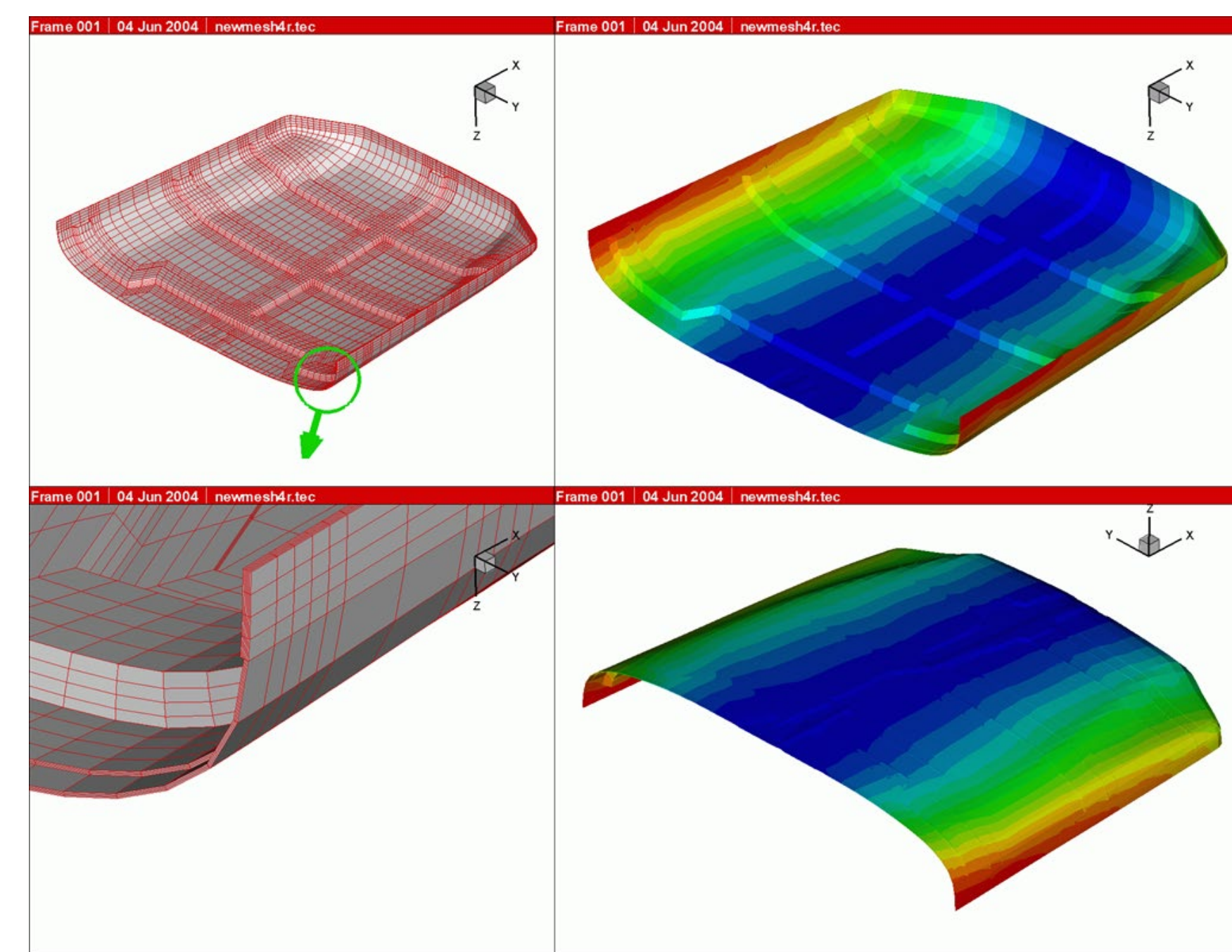
2. There Are Numerous Options in Any of Them



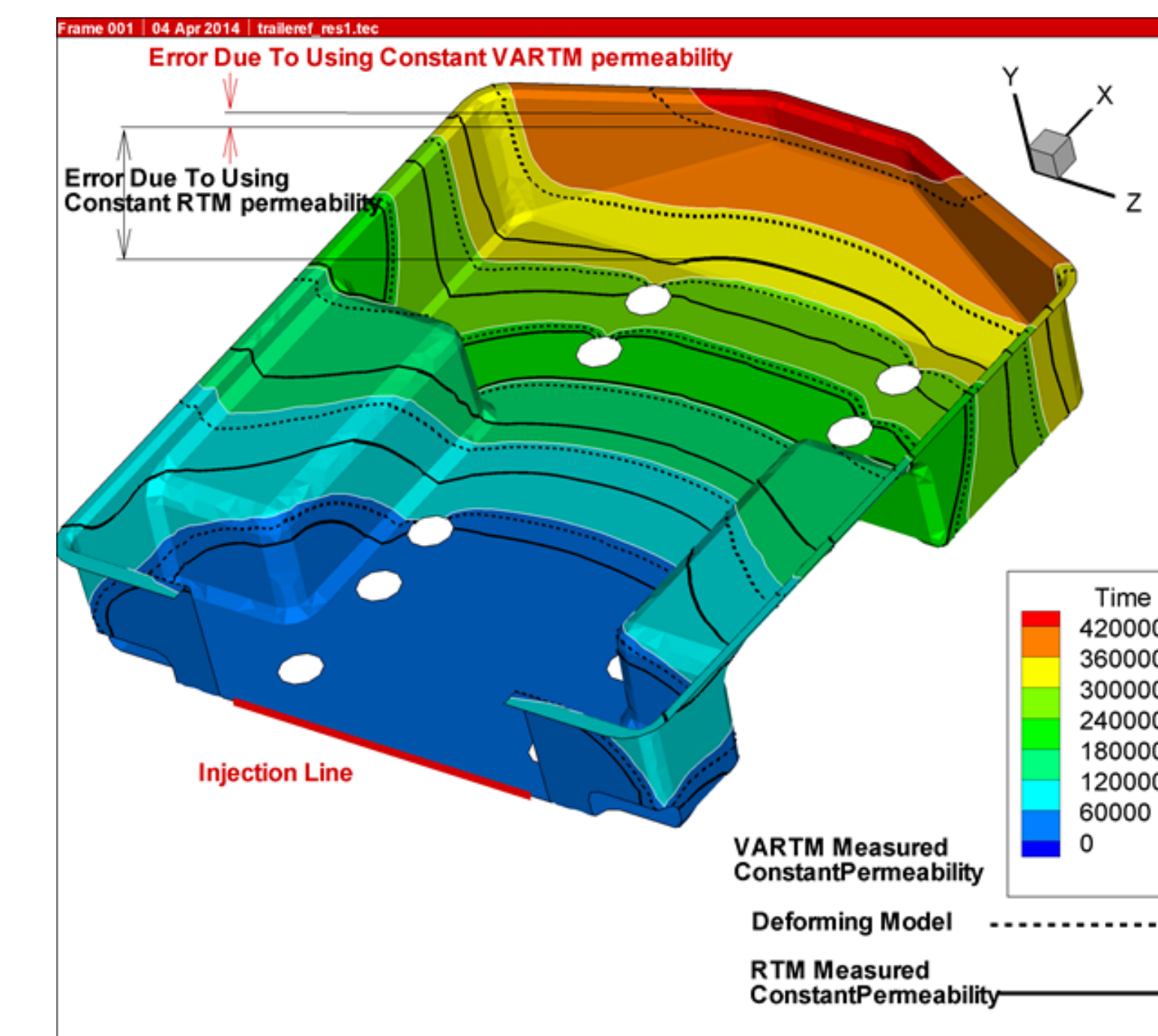
3. Thus, Many Things Can Go Wrong. Modeling Allows:

- Selection Without Trial and Error
- Process Optimization
- Cover for Material Variability

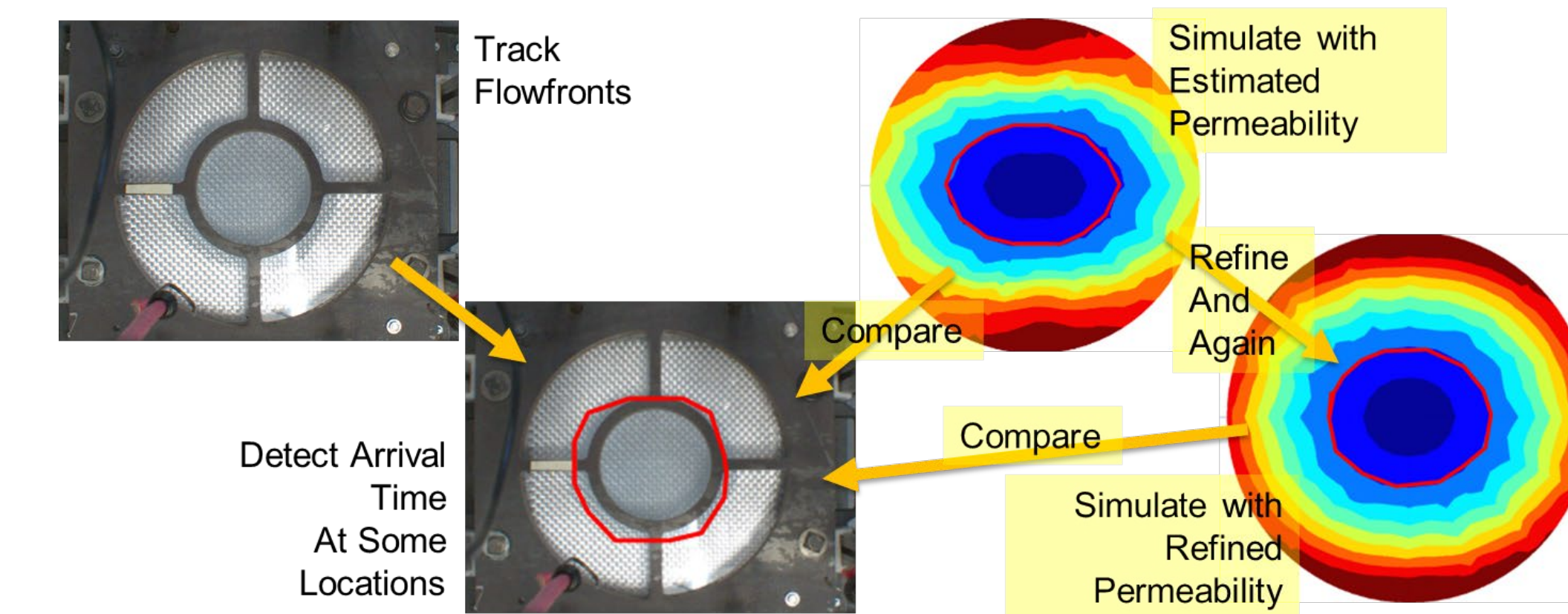
Flow Pattern Determination



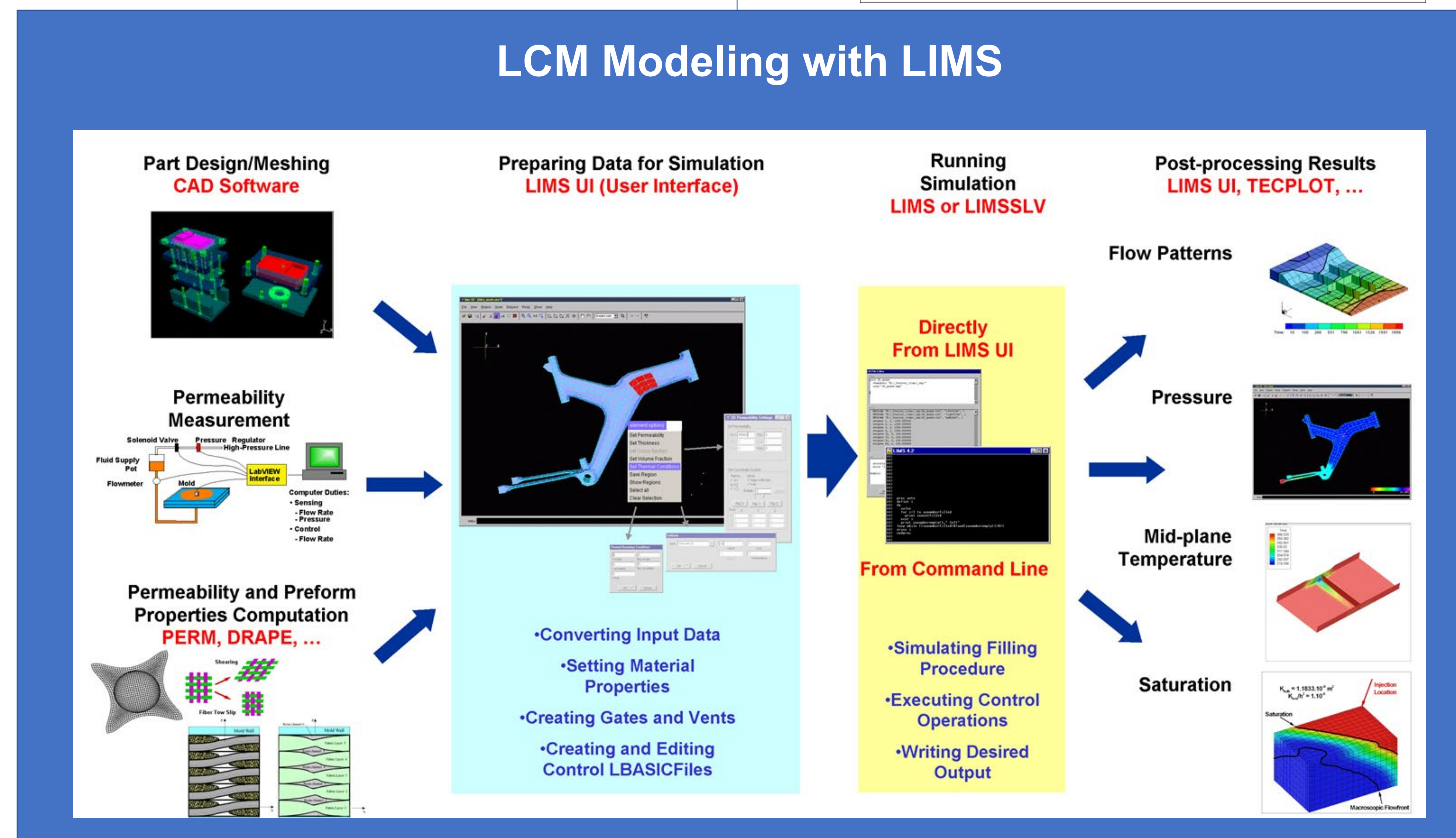
Effects of Material and Mold Compliance



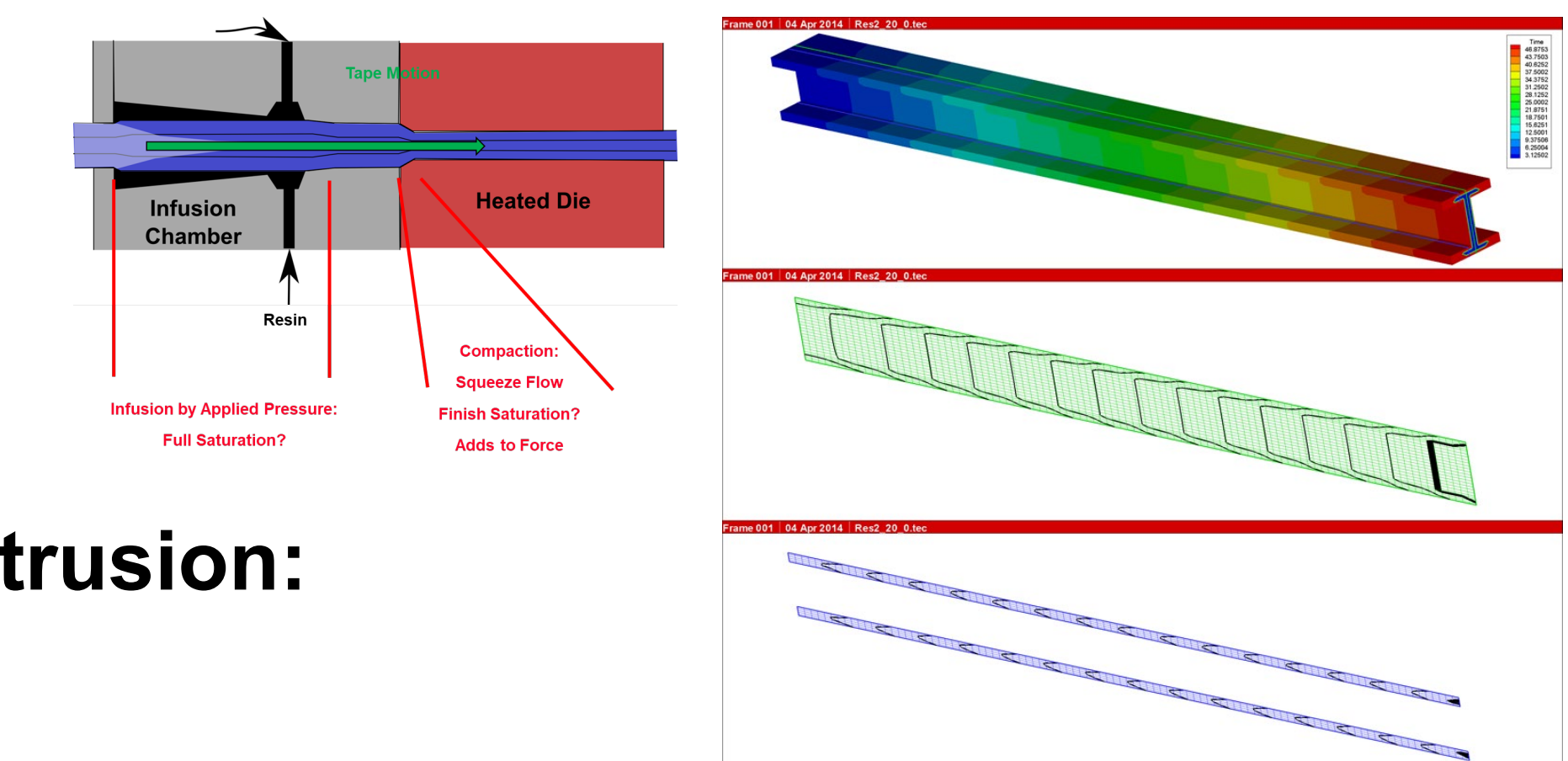
Evaluating Permeability from Experimental Data



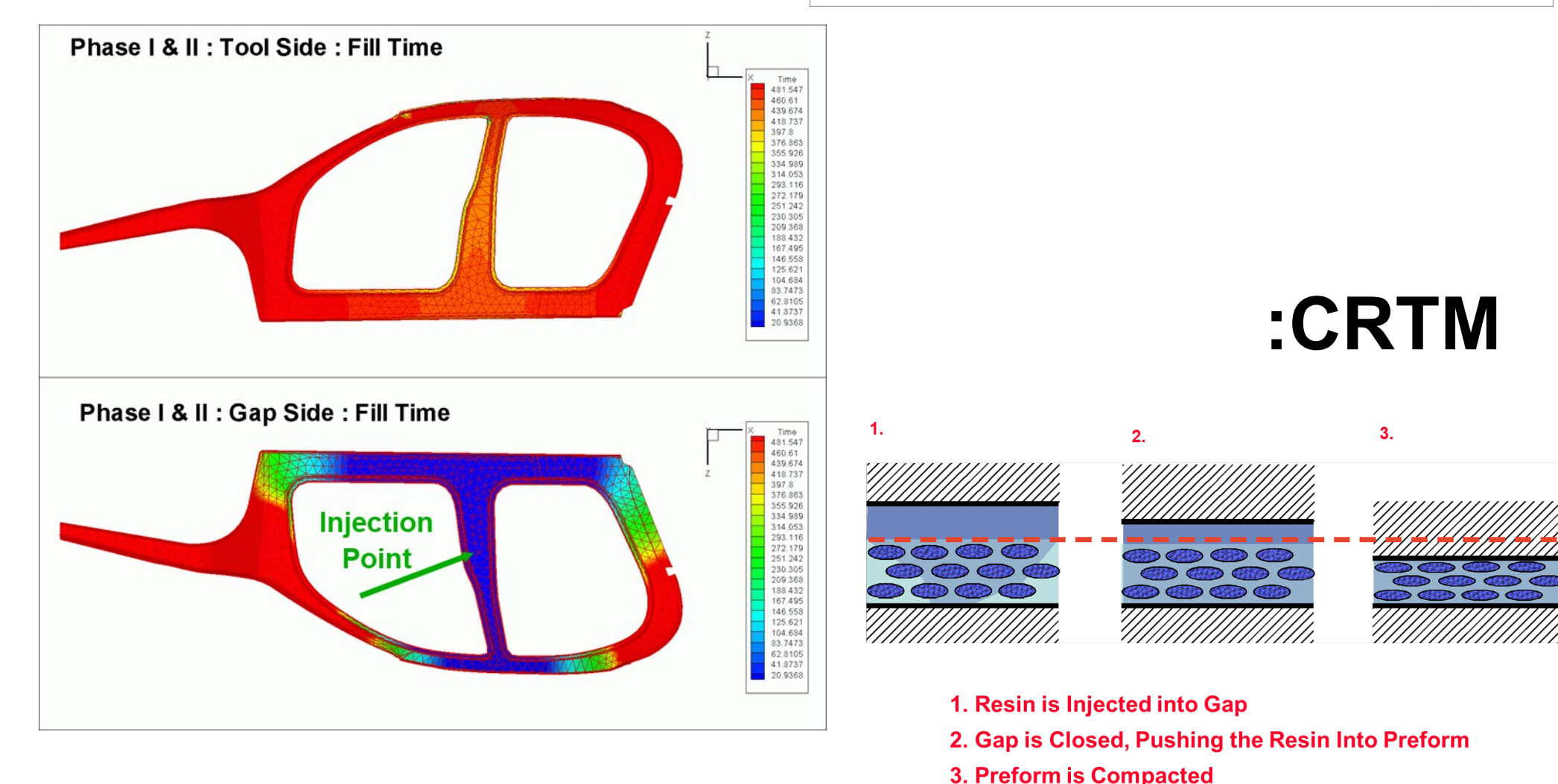
LCM Modeling with LIMS



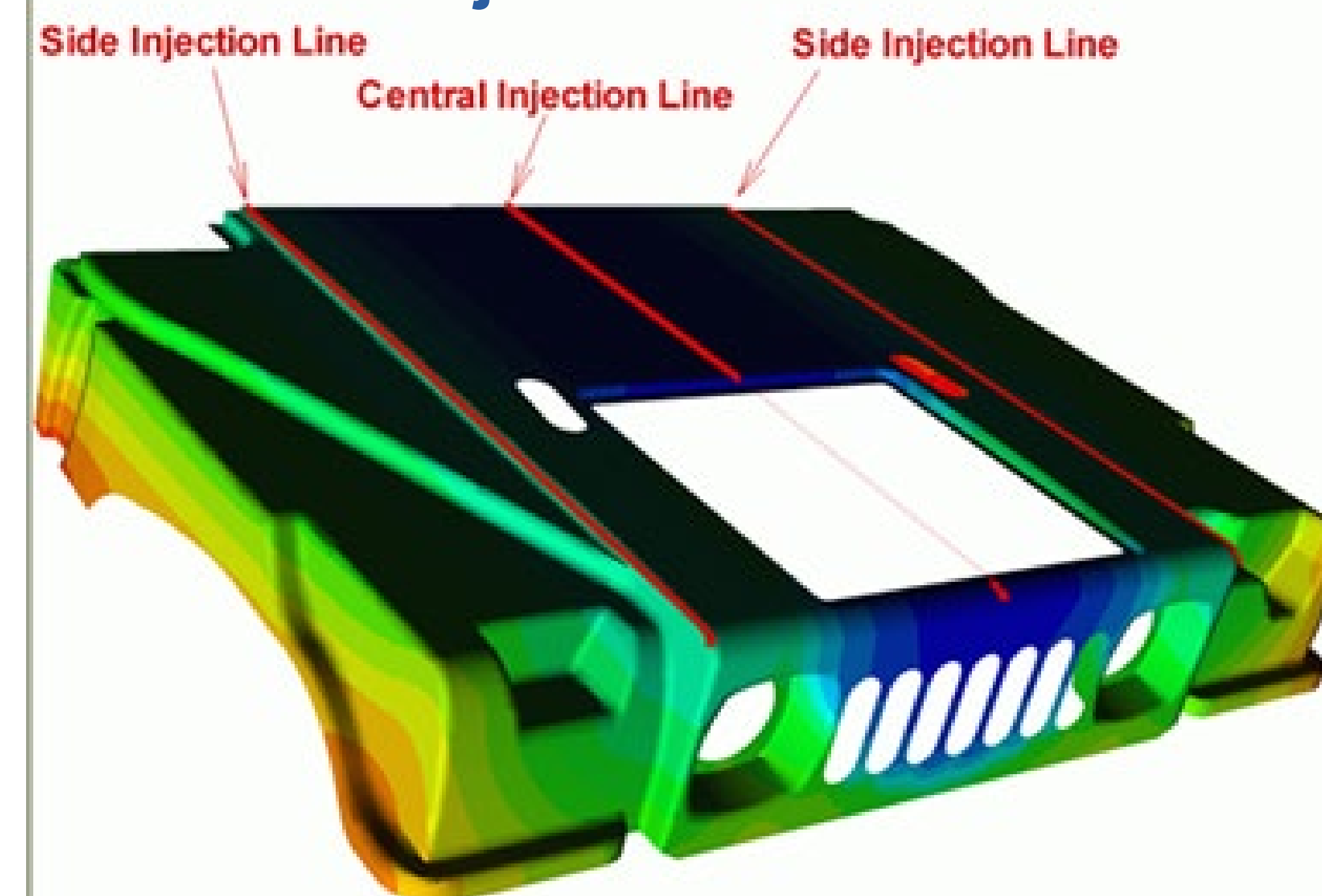
Addressing Particular Infusion Variations.



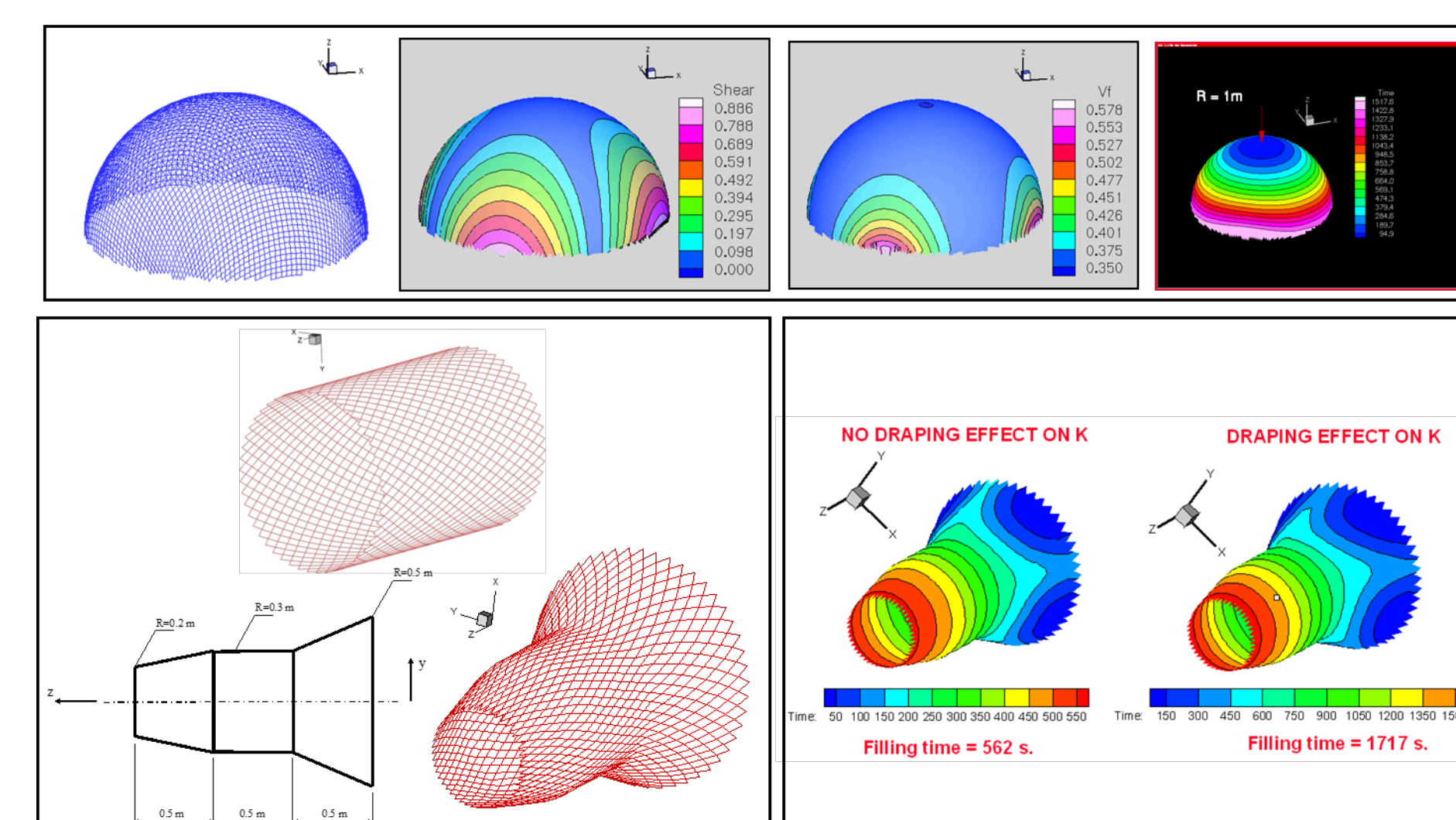
Pultrusion:



Non-Trivial Injection Schemes



Impact of Material Variability and Deformation



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- The original LIMS program in versions prior to 4.0 was written by M. Brusckhe and S.G. Advani.
- For contributors to versions 4.0 and later, see the statement in LimsUI about box.

