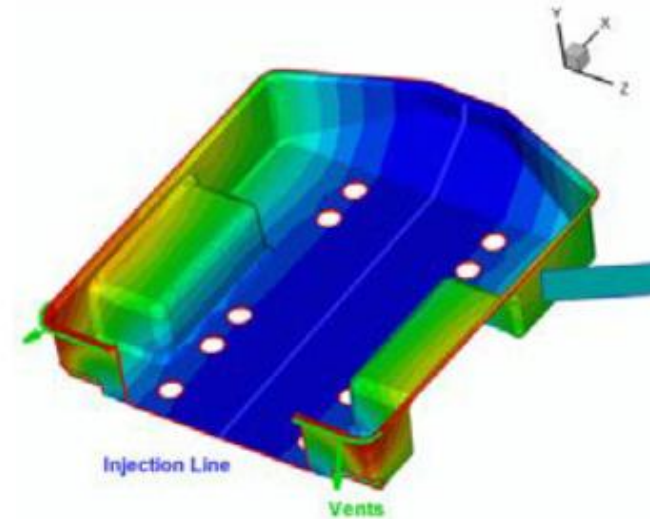


Multi-scale Modeling and Simulation of Composite Manufacturing Processes

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This talk will focus on how the science base of materials processing, which integrates material parameters with transport phenomena at various scales during manufacturing, can be used to create multi-physics models and implemented in simulations to describe the effect of material, geometric and process parameters on the final quality of the part. Use of process models and simulations to improve composite manufacturing processes to fabricate light weight composites structures for transportation, wind and energy storage applications will be presented.