

Exceptional service in the national interest

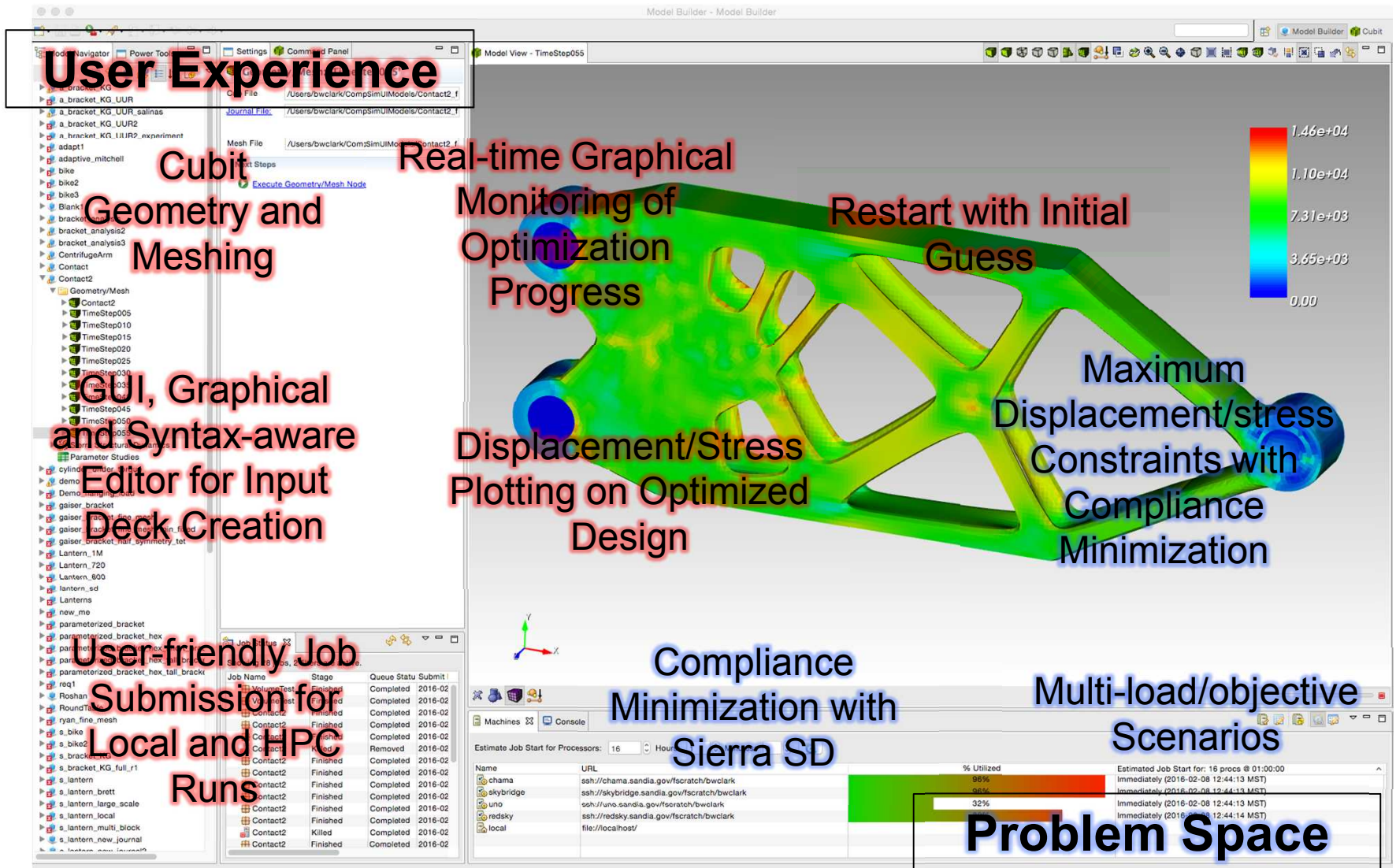


Plato Design Environment

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SAND2015-10065 PE

Plato 1.0



Real-time Example Run

Model Builder - DART-Hidden-Default-Project/LINKED_RESOURCES/Users/bwclark/CompSimUIModels/RoundTableCoarseSalinas_files/simulation/RoundTableCoarseSalinas.i - Model Builder

Model Navigator

- Lantern_coarse
- lantern_sd
- Lanterns
- new_me
- parameterized_bracket
- parameterized_bracket_hex
- parameterized_bracket_hex_short_bri
- parameterized_bracket_hex_tall_brac
- parameterized_bracket_hex_tall_brac
- req1
- Roshan
- RoundTable
- RoundTableCoarse
- RoundTableCoarseSalinas
 - Geometry/Mesh
 - Sierra Structural Dynamics
 - Boundary Conditions
 - Constraints
 - Contacts
 - Coordinates
 - Finite Element Model
 - Functions
 - Initial Conditions
 - Interactions
 - Limits
 - Materials
 - Mechanics
 - Outputs
 - Parameters
 - Solution
 - Solution Control
 - Solvers
 - Topology Optimization
 - Simulation Job [idle]
 - Parameter Studies
- ryan_fine_mesh
- s_bike
- s_bike2
- s_bracket_KG
- s_bracket_KG_full_r1
- s_lantern
- s_lantern_brett
- s_lantern_large_scale
- s_lantern_local
- s_lantern_multi_block
- s_lantern_new_journal
- s_lantern_new_journal2
- s_lantern_symmetric
- s_lantern_symmetric2
- s_mitchell
- s_mitchell_mesh_var1
- sd_lantern_demo
- test_mesh_variation
- therm_mech
- therm_mech_dup
- toa10
- toa3
- toa4
- toa5
- toa6
- tpd
- TPD_with_blends_albany
- TPD_with_blends_albany_no_restart
- TPD_with_blends_multi_albany
- TPD_with_blends_new_loading
- tpd2
- trv1

Command Panel

RoundTableCoarseSalinas on skybrid

Basic

Code: Salinas

Job Attrs

Machine: skybrid

Job Stage: Sub

Queue Id / State: 691357

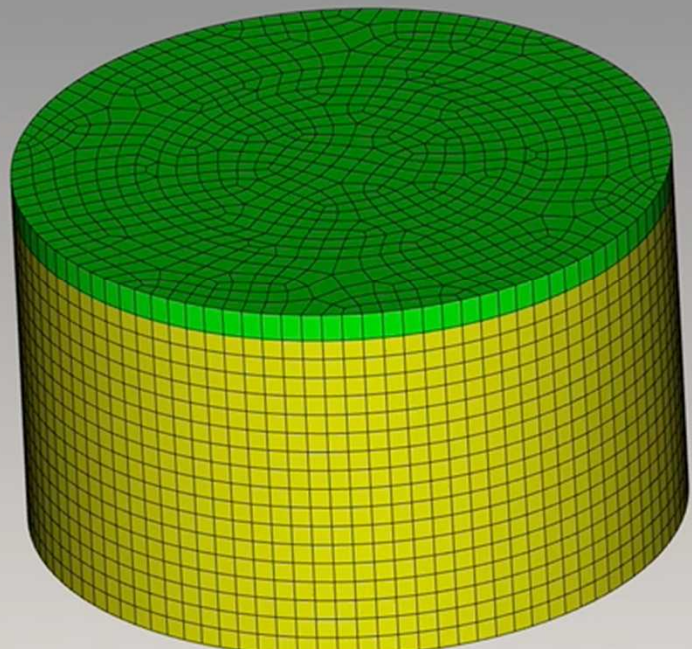
Submitted On: 2016-03

Account: FY14021

Requested Processors: 16

Requested Job Runtime: 30 min

Model View - RoundTableCoarseSalinas



RoundTableCoarseSalinas.i

```
/////////  
volume_fraction = 0.25  
output_frequency = 5  
max_num_optimization_itr = 45  
filter_type = kernel  
filter_scale = 3  
filter_iterations = 1  
//// Optional command for blocks you don't want to be optimized.
```

Console

Machines

Job Status

Showing 63 jobs, 2 filters are active.

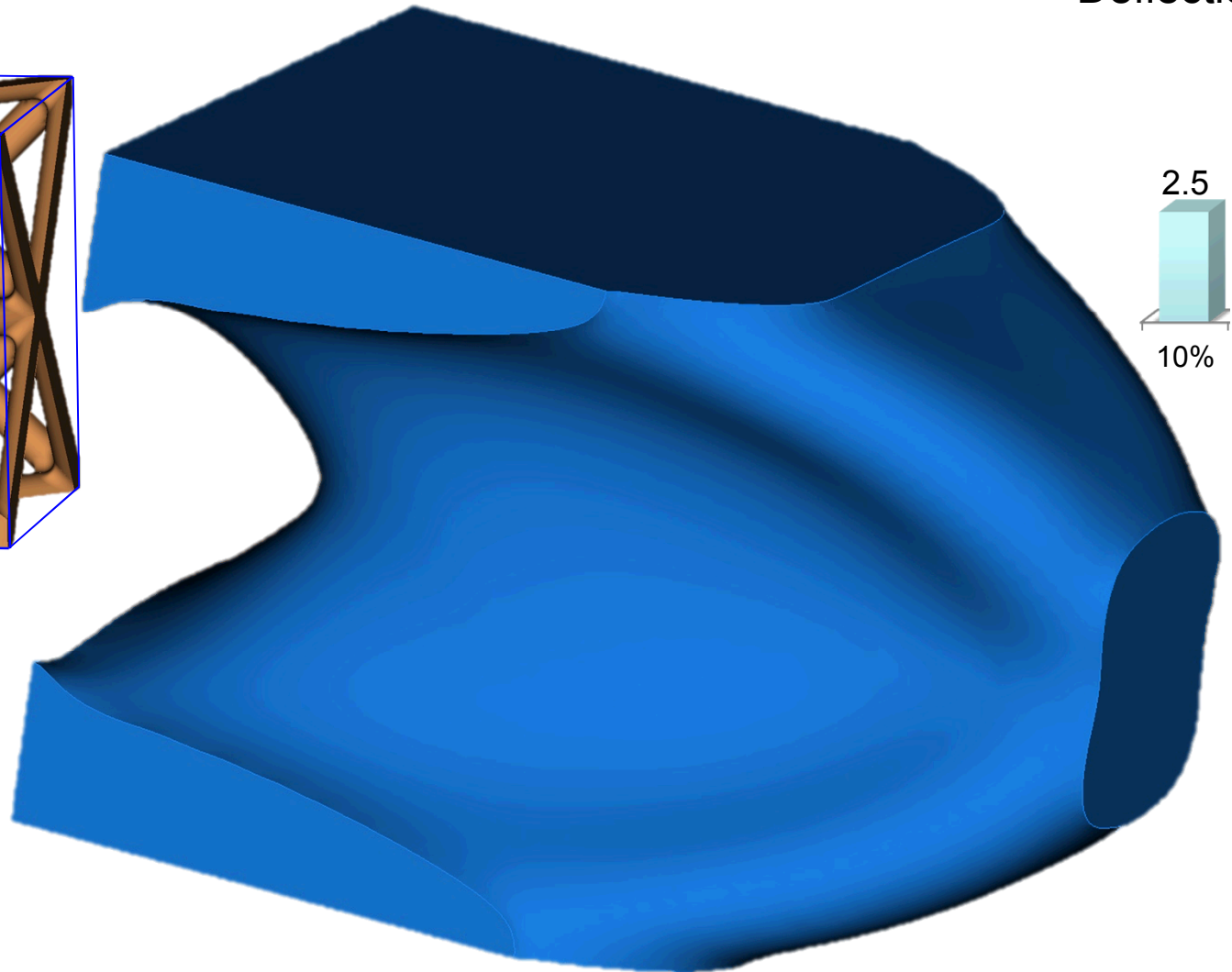
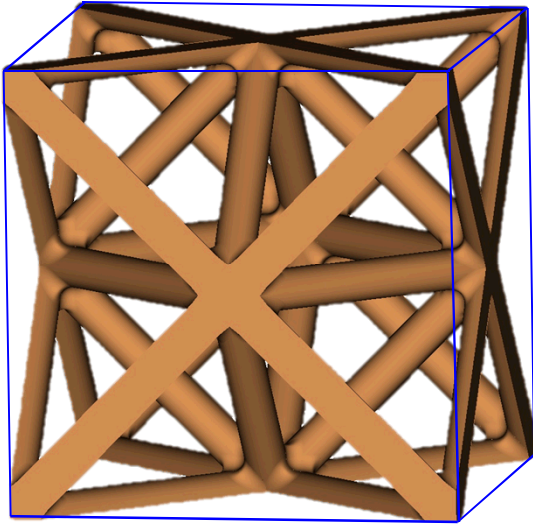
Job Name	Stage	Queue Status	Submit Date	Machine	Job ID
RoundTableCoarseSalinas	Submitted	Idle	2016-03-10 16:35:50 MST	skybridge	691357
RoundTableCoarseSalinas	Killed	Removed	2016-03-10 16:25:55 MST	skybridge	691344
RoundTableCoarseSalinas	Killed	Removed	2016-03-10 16:23:17 MST	skybridge	691342
RoundTableCoarseSalinas	Finished	Completed	2016-03-10 16:21:04 MST	skybridge	691340
RoundTableCoarseSalinas	Finished	Completed	2016-03-10 16:17:56 MST	skybridge	691336

Running RoundTableCoarseSalinas

Meso Scale Lattice – Homogenized Continuum

Deflection

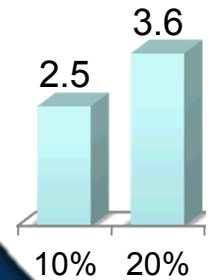
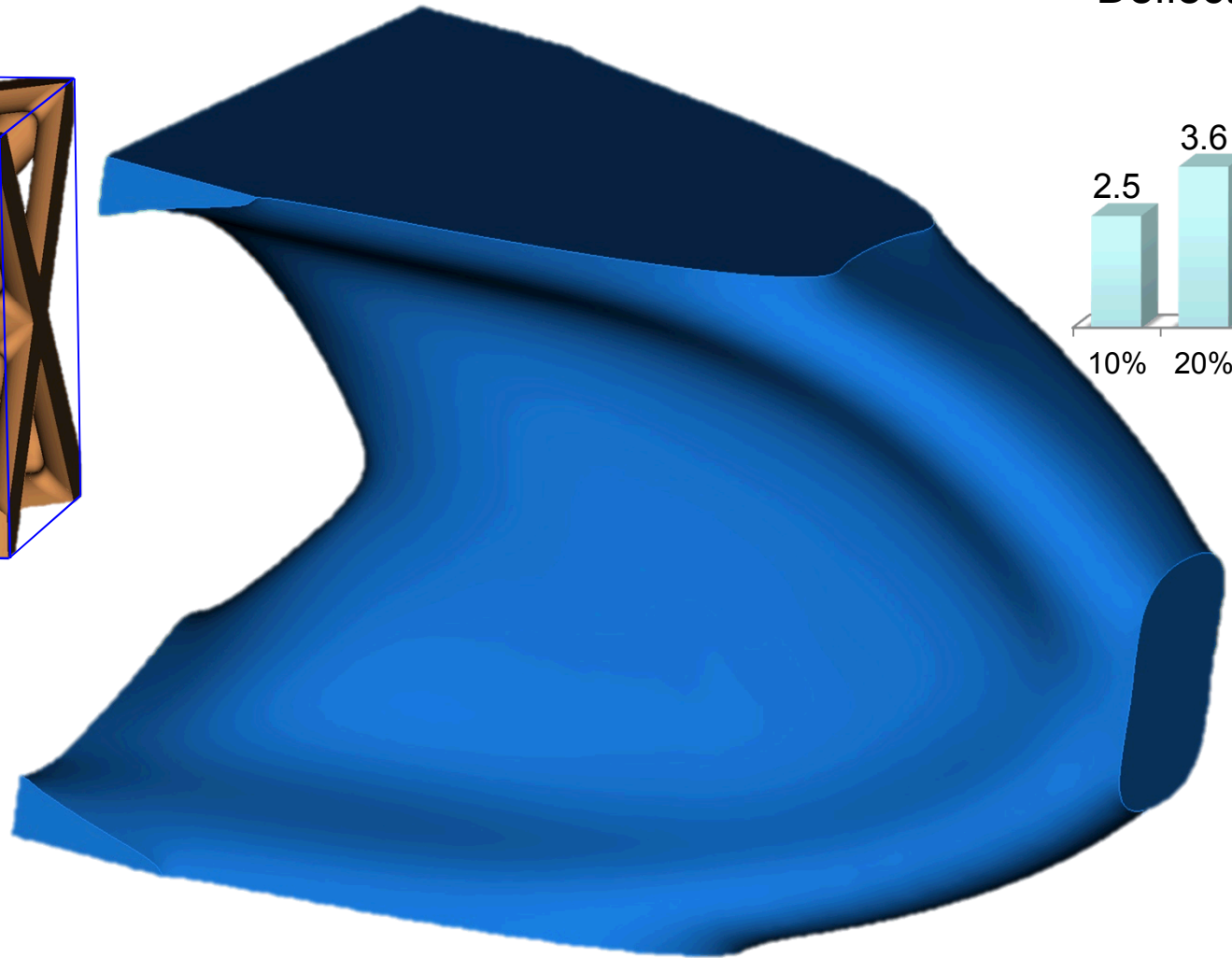
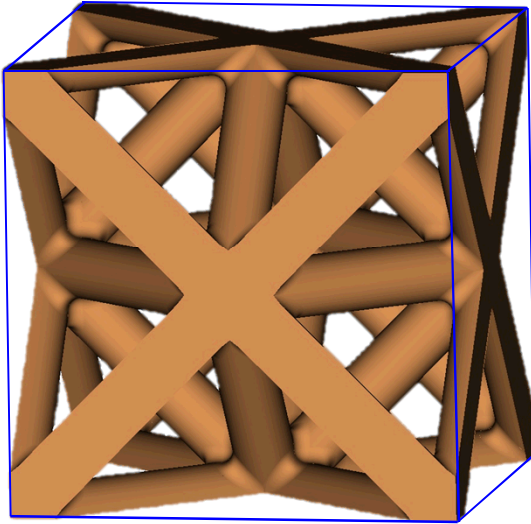
10% Dense



Meso Scale Lattice – Homogenized Continuum

Deflection

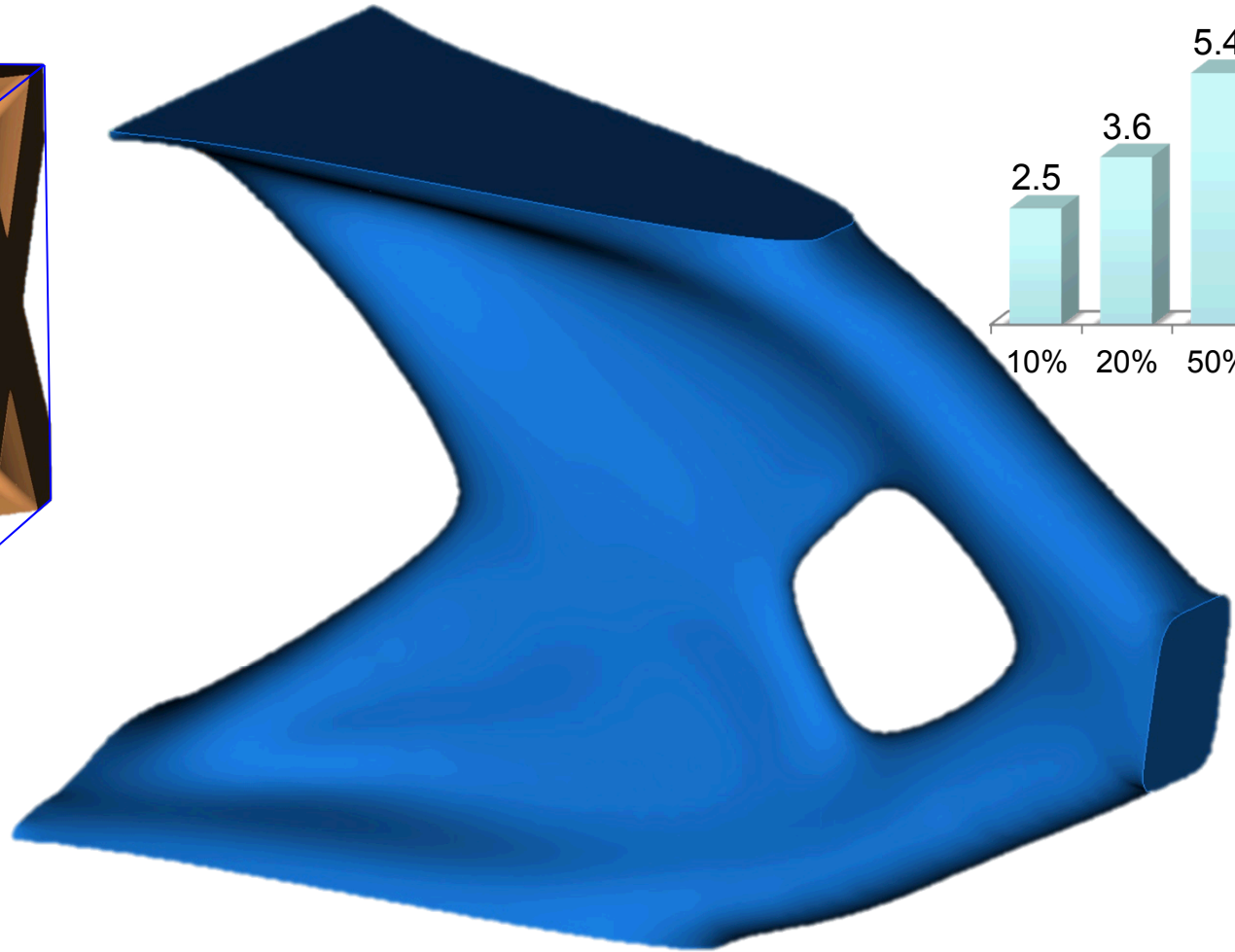
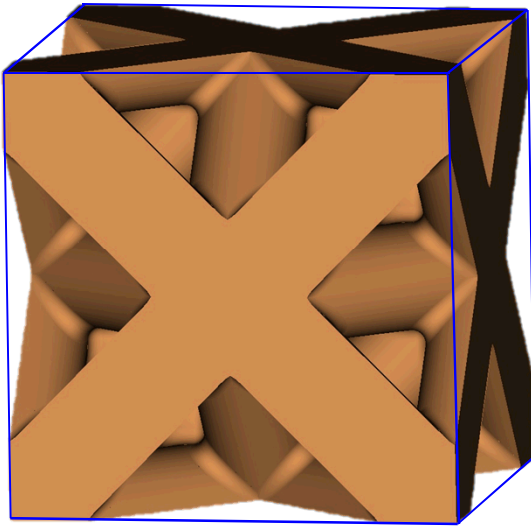
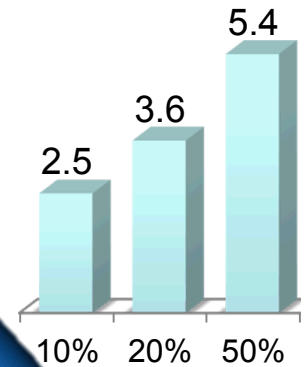
20% Dense



Meso Scale Lattice – Homogenized Continuum

Deflection

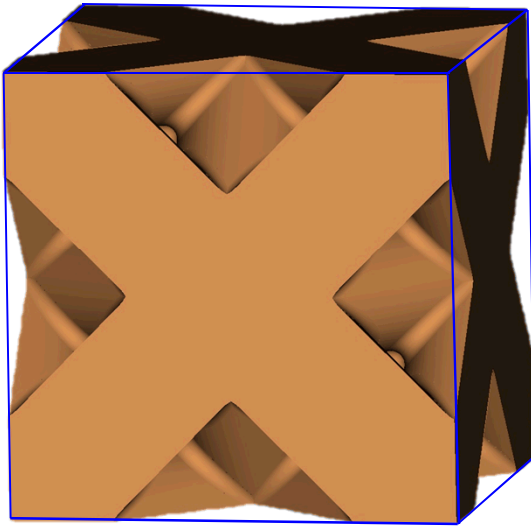
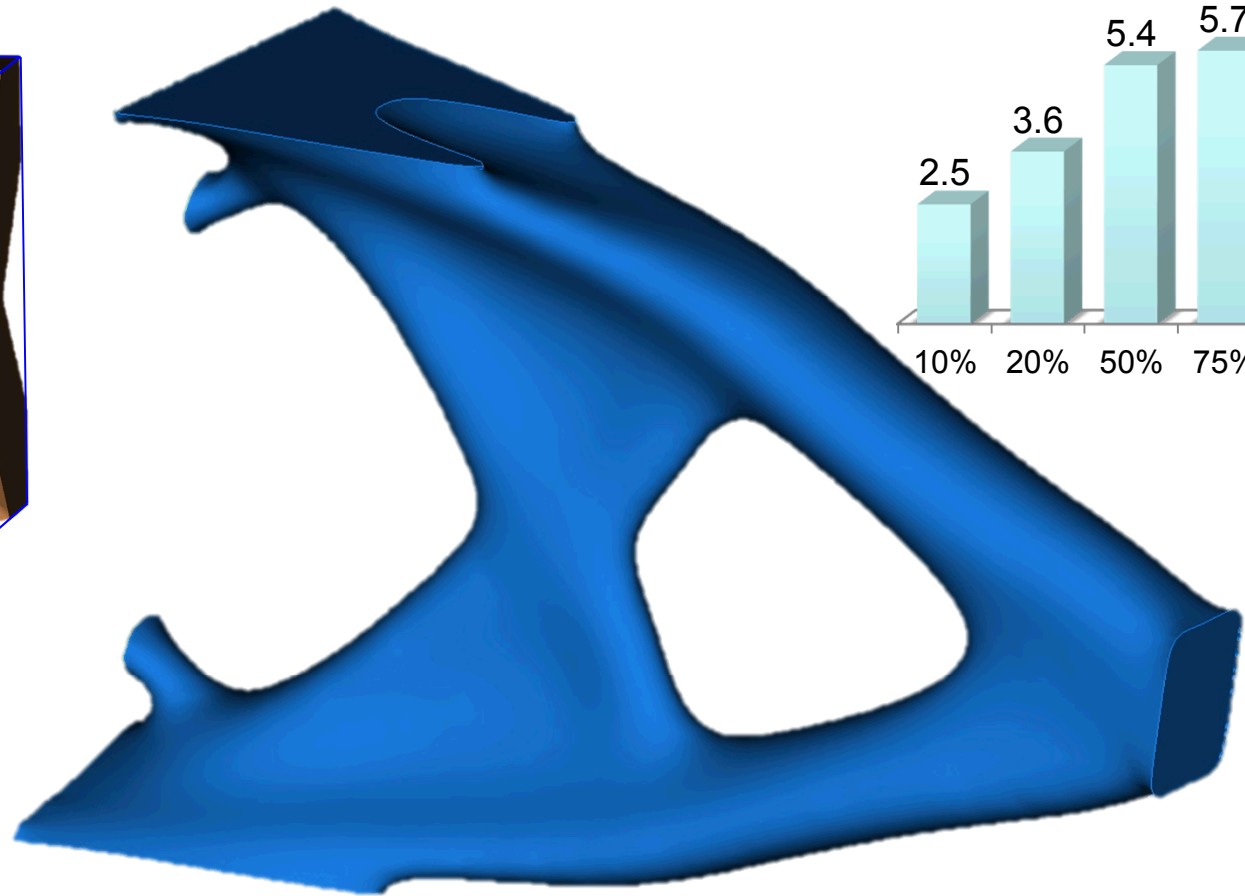
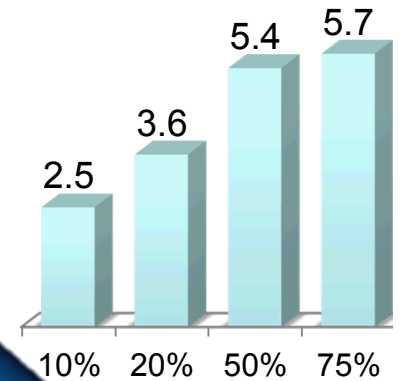
50% Dense



Meso Scale Lattice – Homogenized Continuum

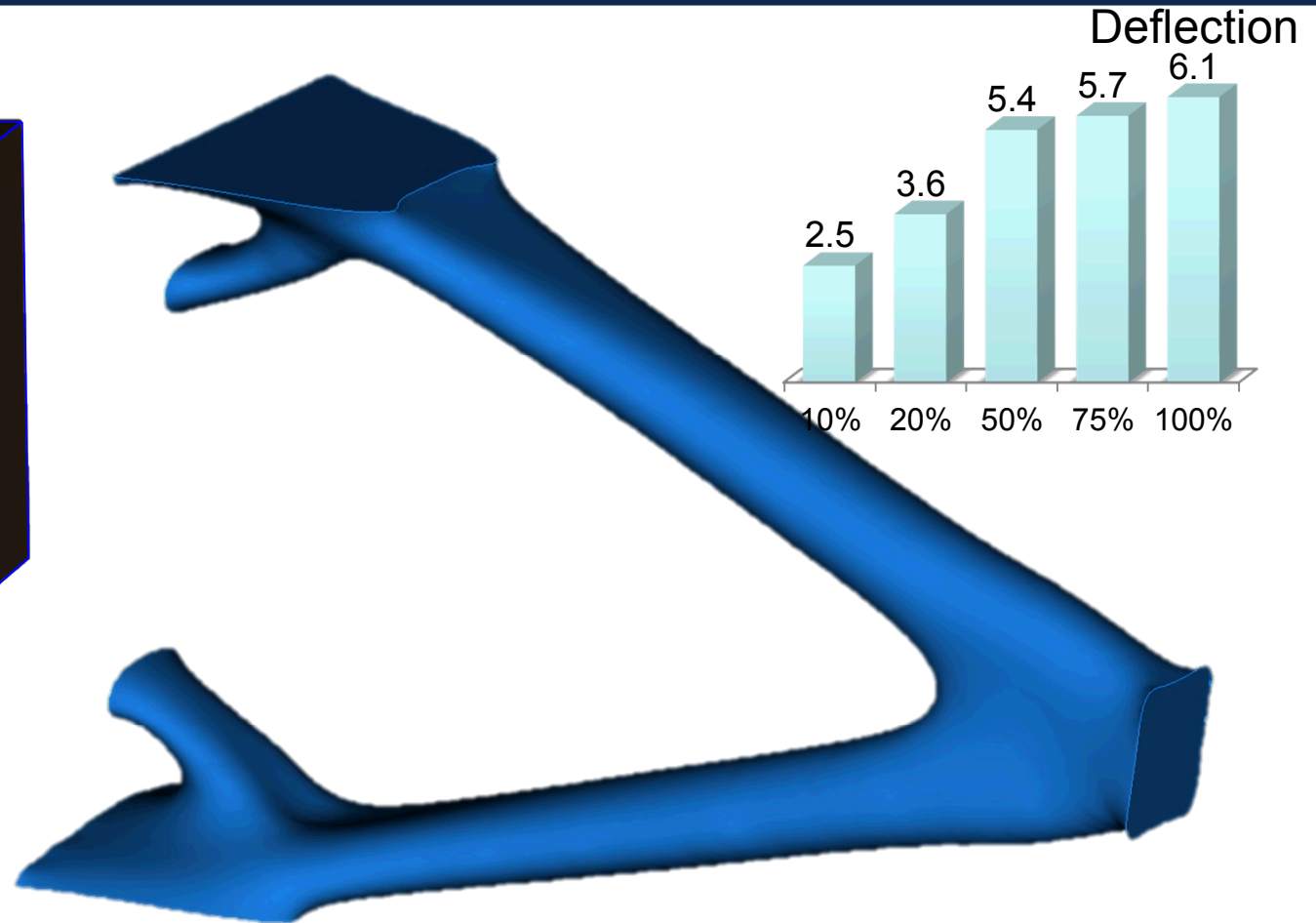
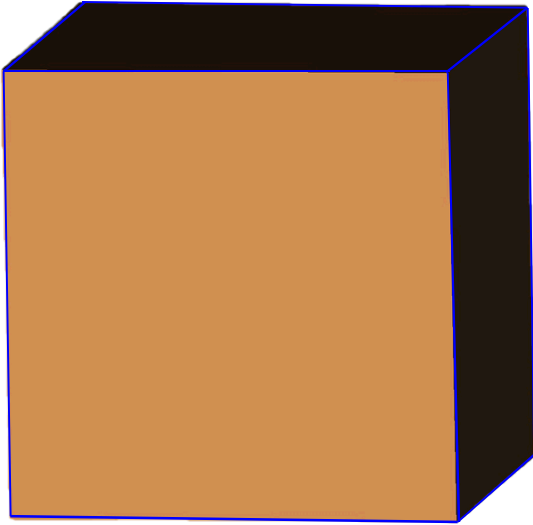
Deflection

75% Dense

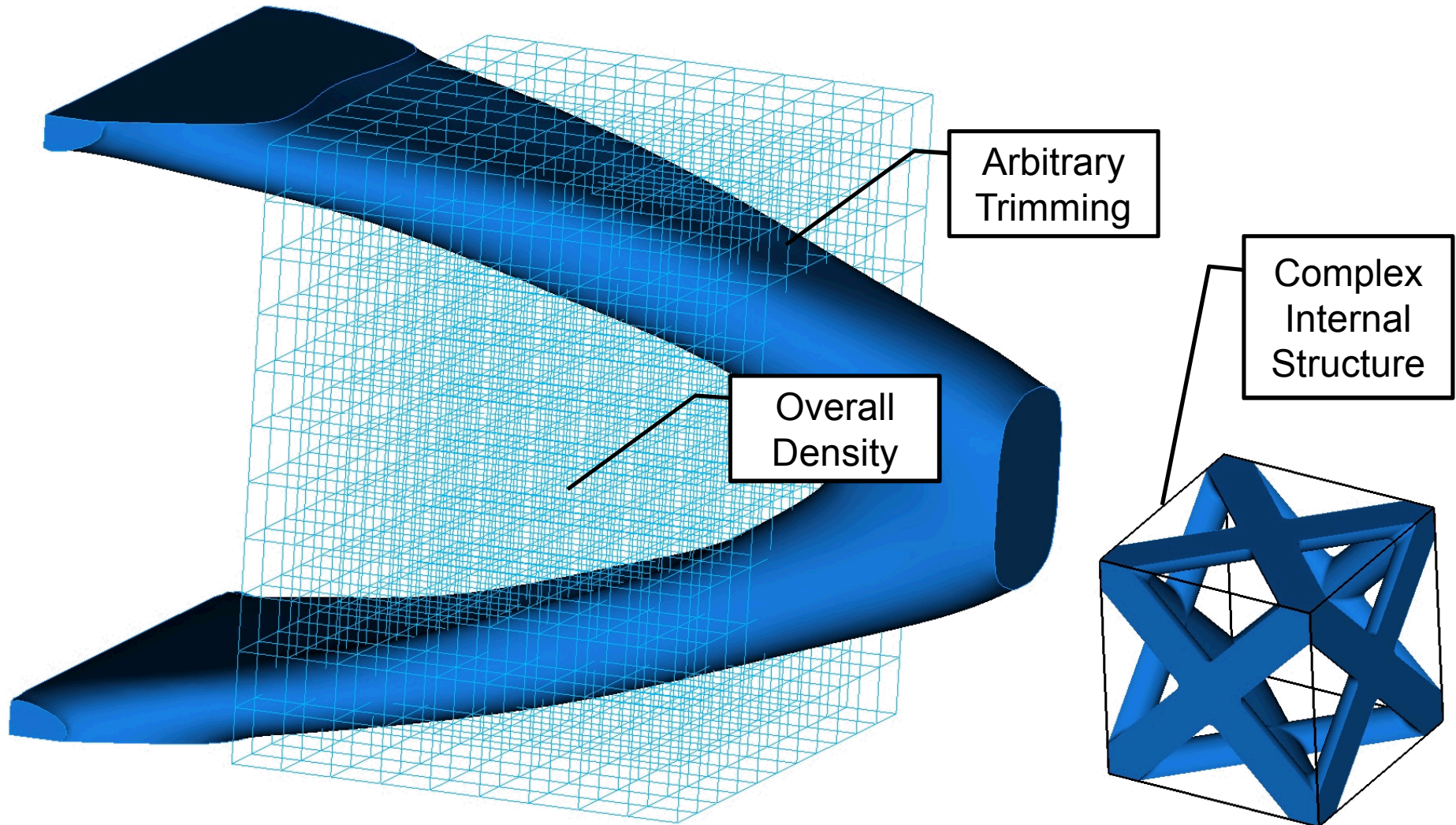


Meso Scale Lattice – Homogenized Continuum

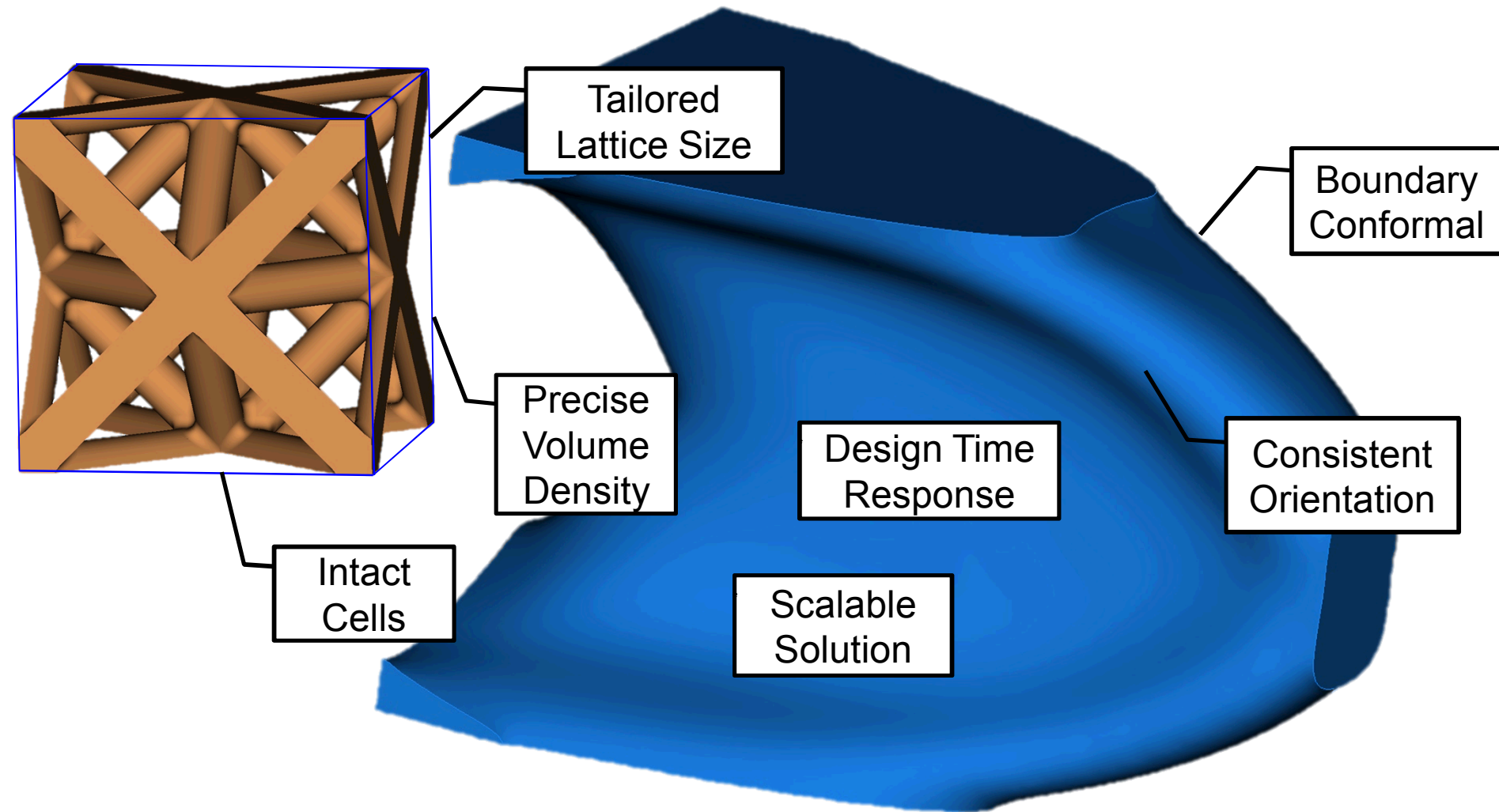
100% Dense



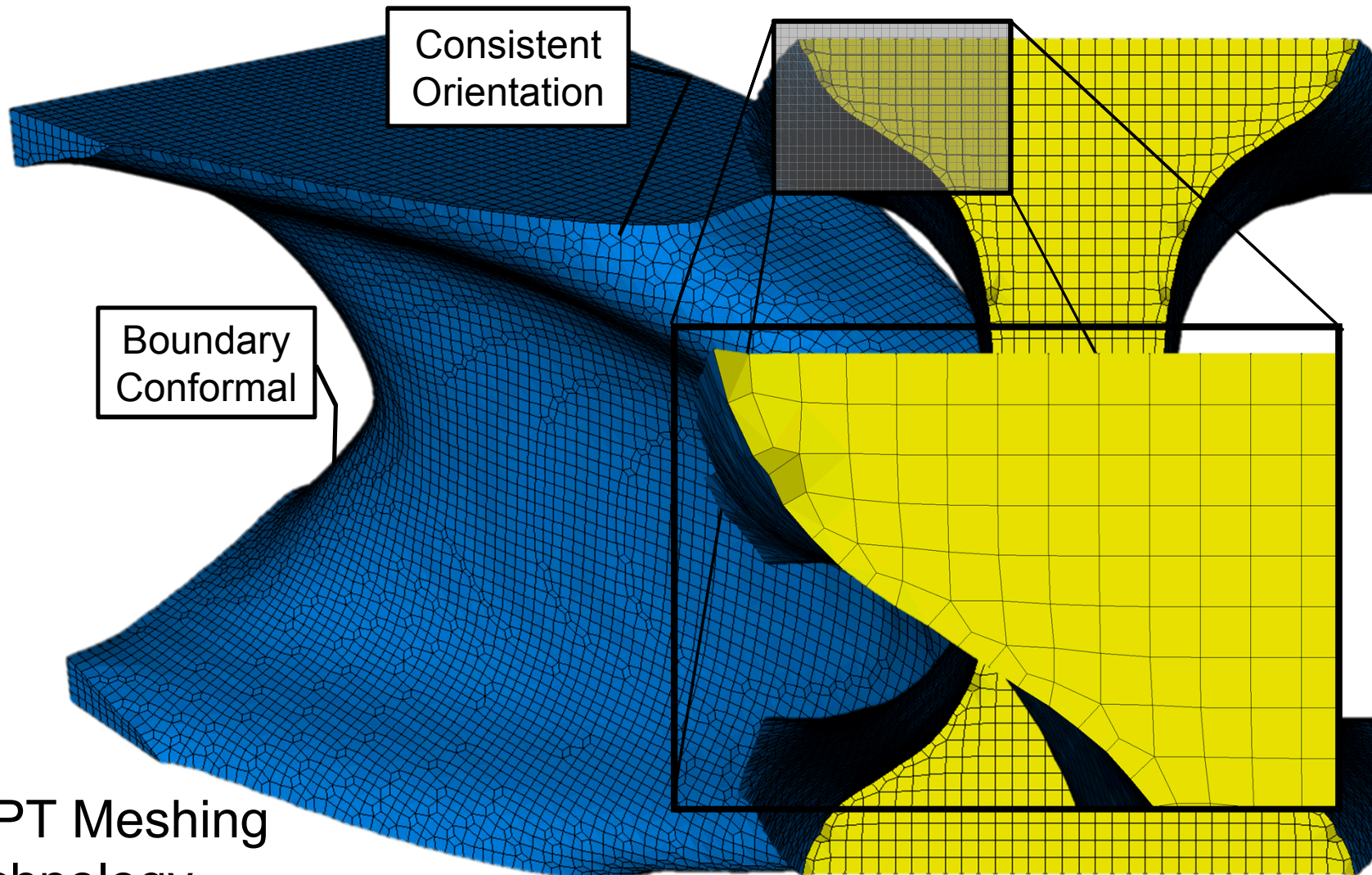
Careful Crafting: Feasible Lattice Printing



Careful Crafting: Feasible Lattice Printing

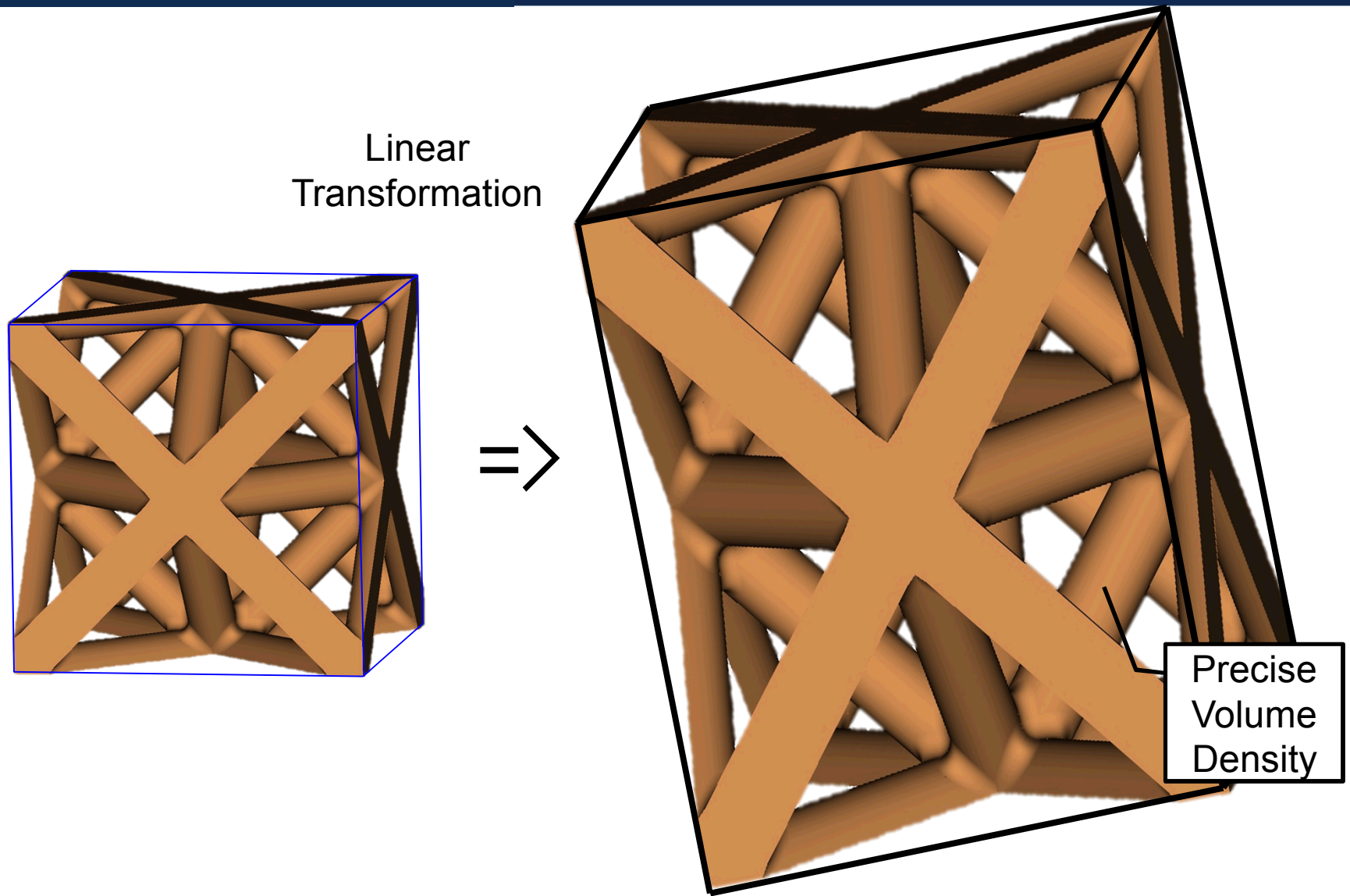


Careful Crafting: Feasible Lattice Printing

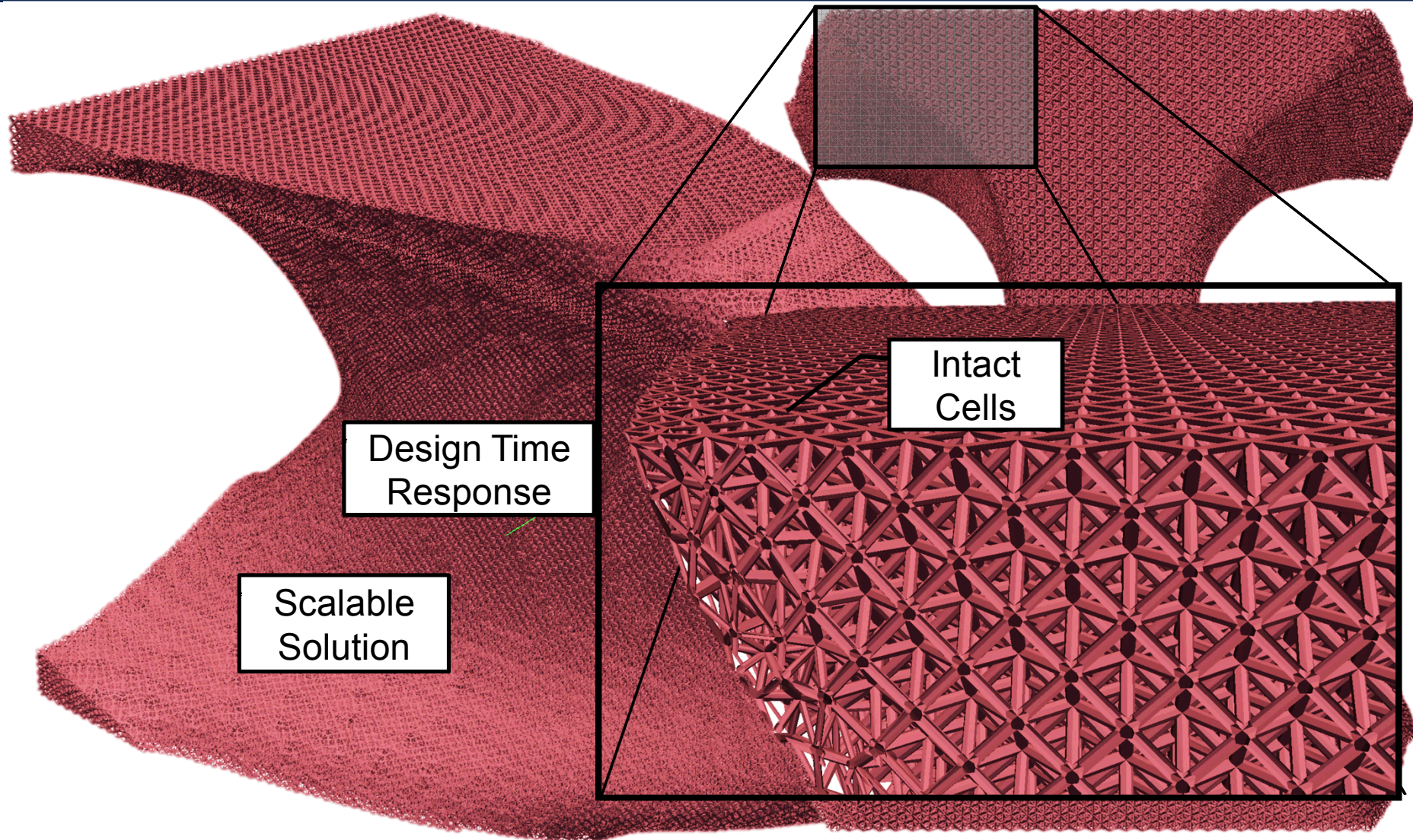


SCULPT Meshing
Technology

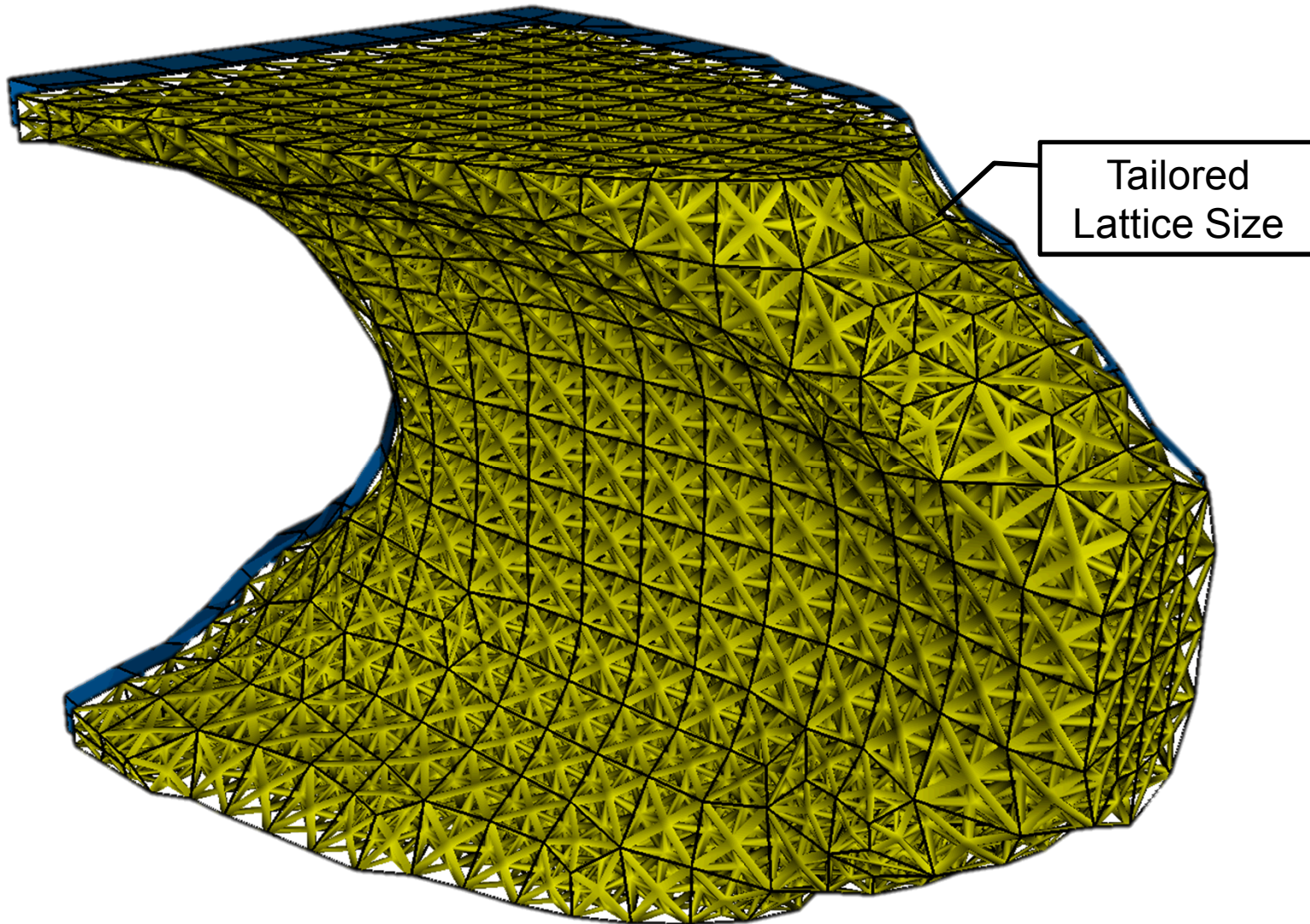
Careful Crafting: Feasible Lattice Printing



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