



## **Simulation Summary Report**

Project Title: 3D C/C microstructure

Description: 3D, Transient, Fracture Analysis, Isotropic, Orthotropic

Created By: pmasscasestudies

Project Created: 08/16/2023-14:16

Report Created: 10/31/2023-10:36

Analysis Type: Fracture Analysis

Solver: transient

Dimension: 3

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"type": "constant", "yaw": 90}, "dimension": 3}, {"name": "fibery-2", "geometry"
: {"length": [1.1154, 2.745, 1.1154], "center": [1.35, 1.3725, 2.88], "name": "g
eo1", "roll": 0, "pitch": 0, "type": "cuboid", "yaw": 0}, "material": {"name": "
mat2", "roll": 0, "pitch": 0, "type": "constant", "yaw": 90}, "dimension": 3}, {"
name": "fiberx-1", "geometry": {"length": [2.7, 1.14557, 1.14557], "center": [1
.35, 1.3725, 1.44], "name": "geo1", "roll": 0, "pitch": 0, "type": "cuboid", "ya
w": 0}, "material": {"name": "mat2", "roll": 0, "pitch": 0, "type": "constant",
"yaw": 0}, "dimension": 3}}], "inclusion_damage": "true", "project_id": "d23683
8b-2f17-4ea4-9b27-f9ca12641156", "description": "3D, Transient, Fracture Analysi
s, Isotropic, Orthotropic"}
```

### **Undeformed Grid**

Number of Points: 221504

min-x: 0.0225

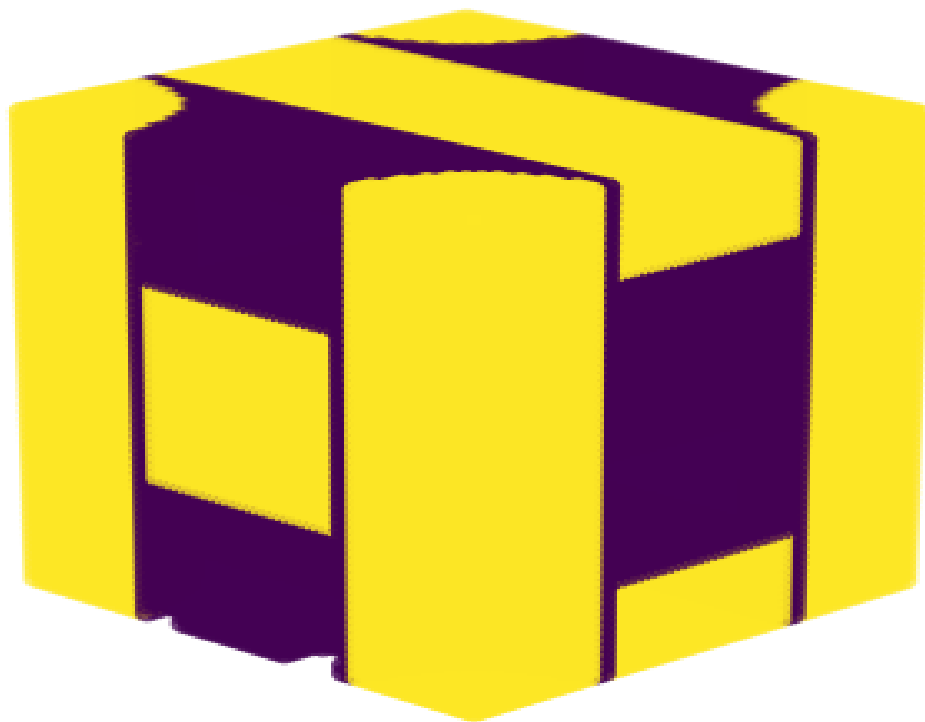
max-x: 2.6774999999999998

min-y: 0.0225

max-y: 2.7224999999999997

min-z: 0.0225

max-z: 2.8575



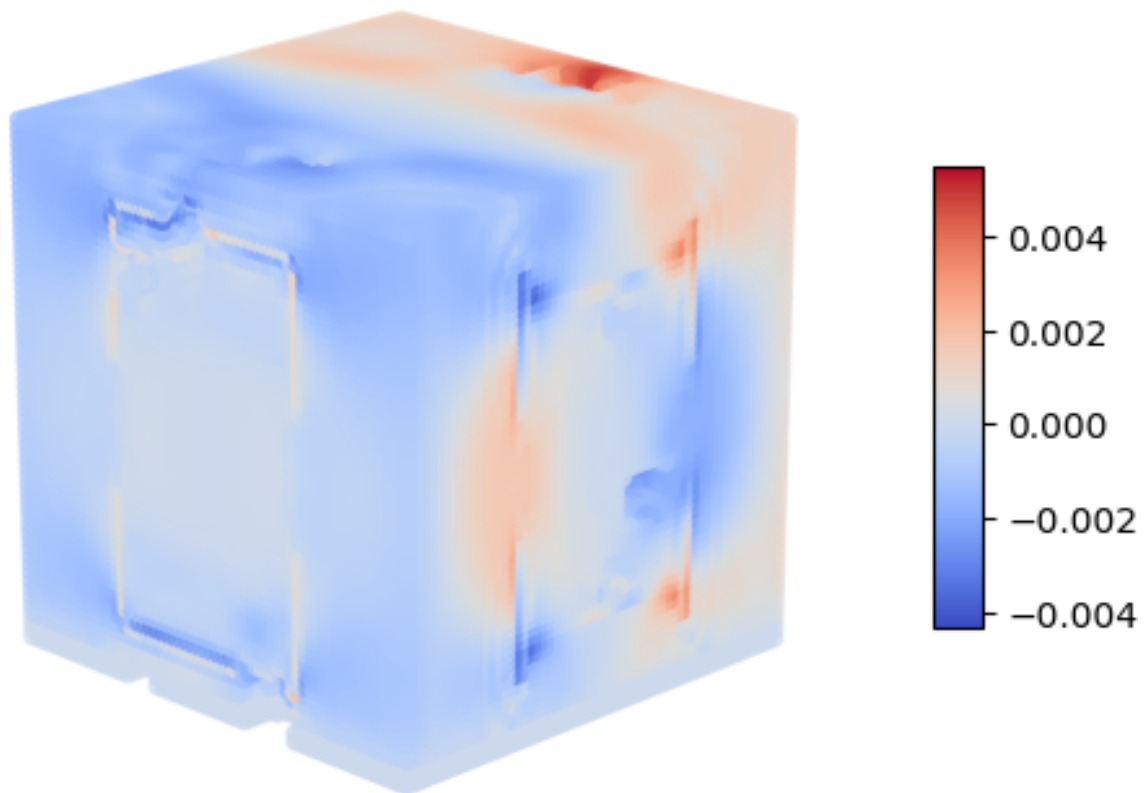
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: u-x

min-u-x: -0.00431757

max-u-x: 0.00550317



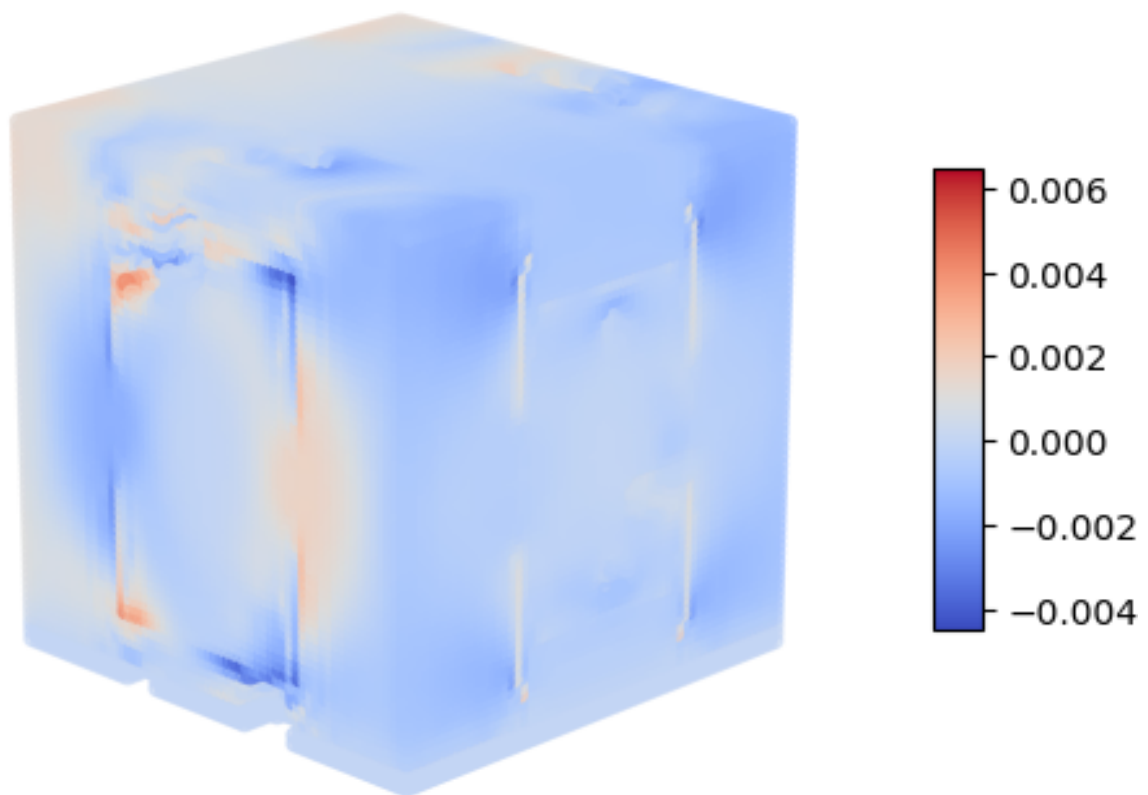
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: u-y

min-u-y: -0.00446026

max-u-y: 0.00646846





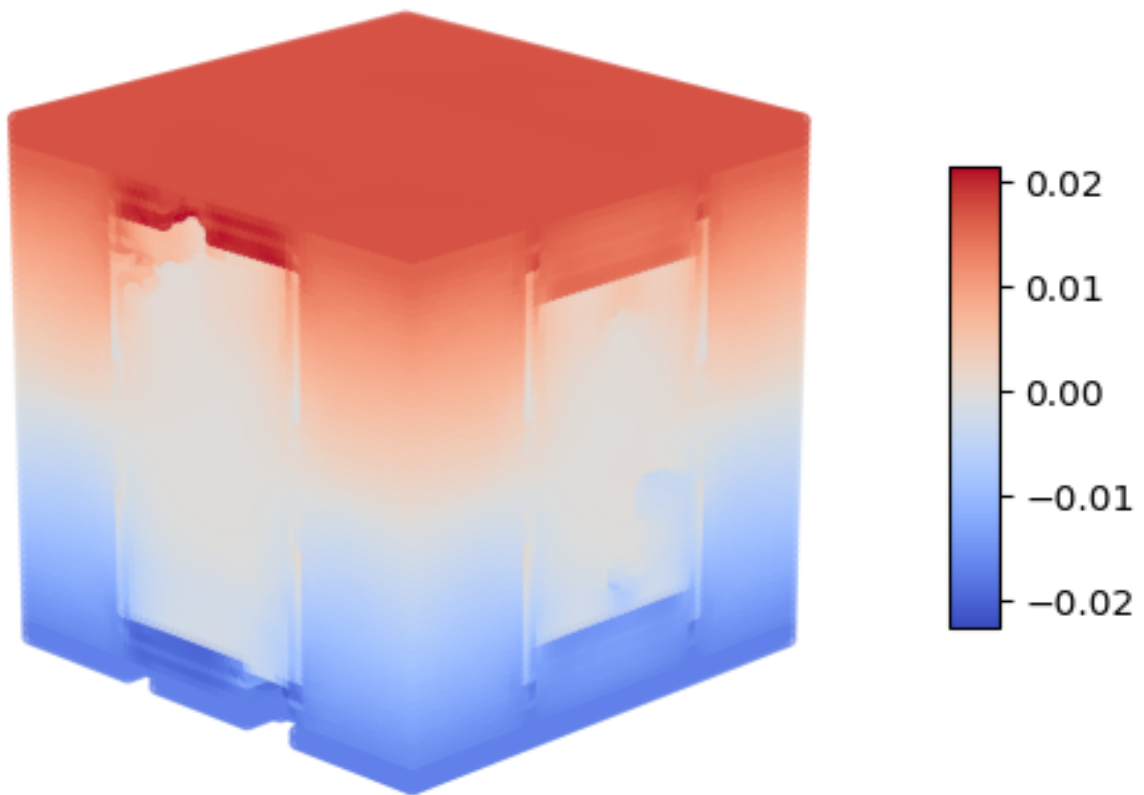
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: u-z

min-u-z: -0.0224311

max-u-z: 0.021353



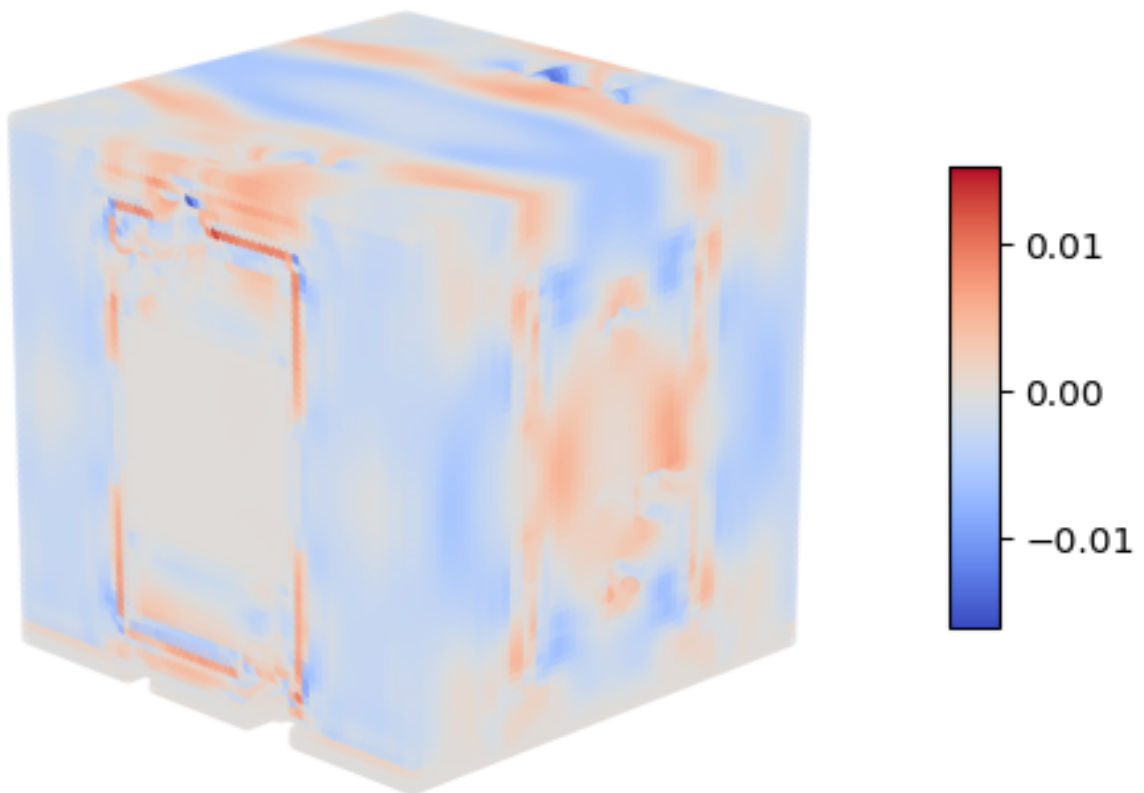
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: e-x

min-e-x: -0.0159424

max-e-x: 0.0152014



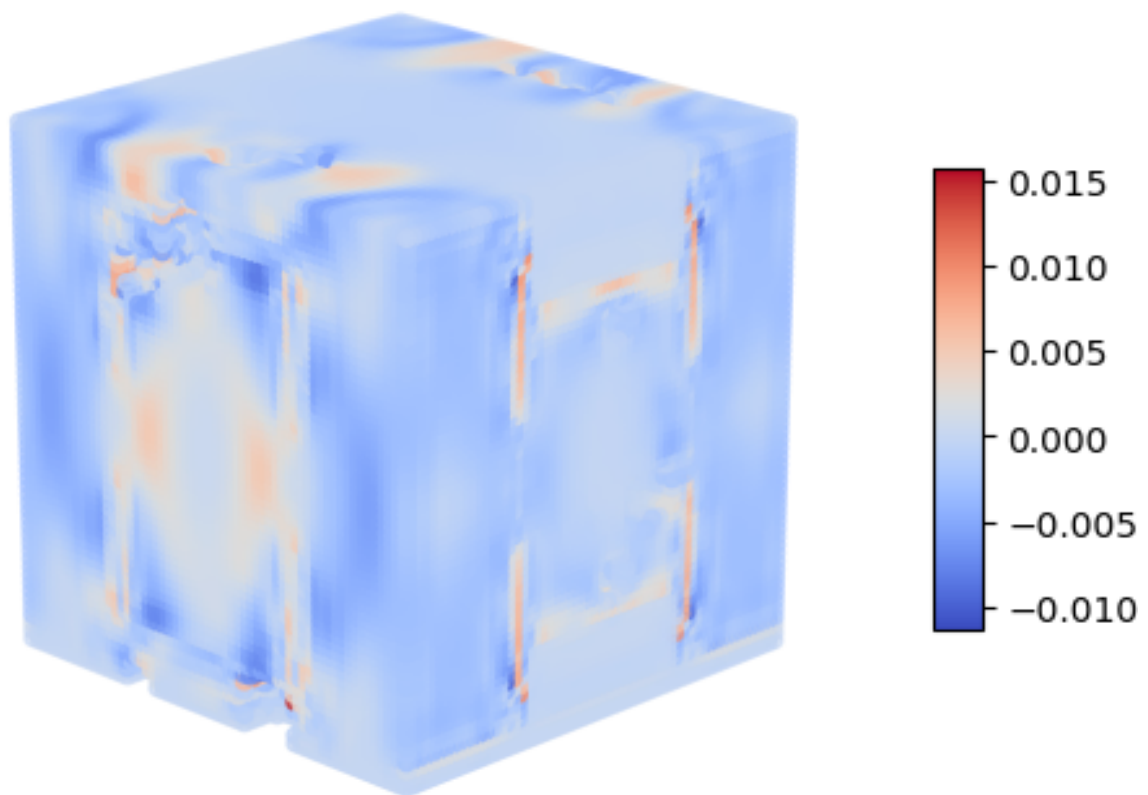
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: e-y

min-e-y: -0.0112894

max-e-y: 0.0157472



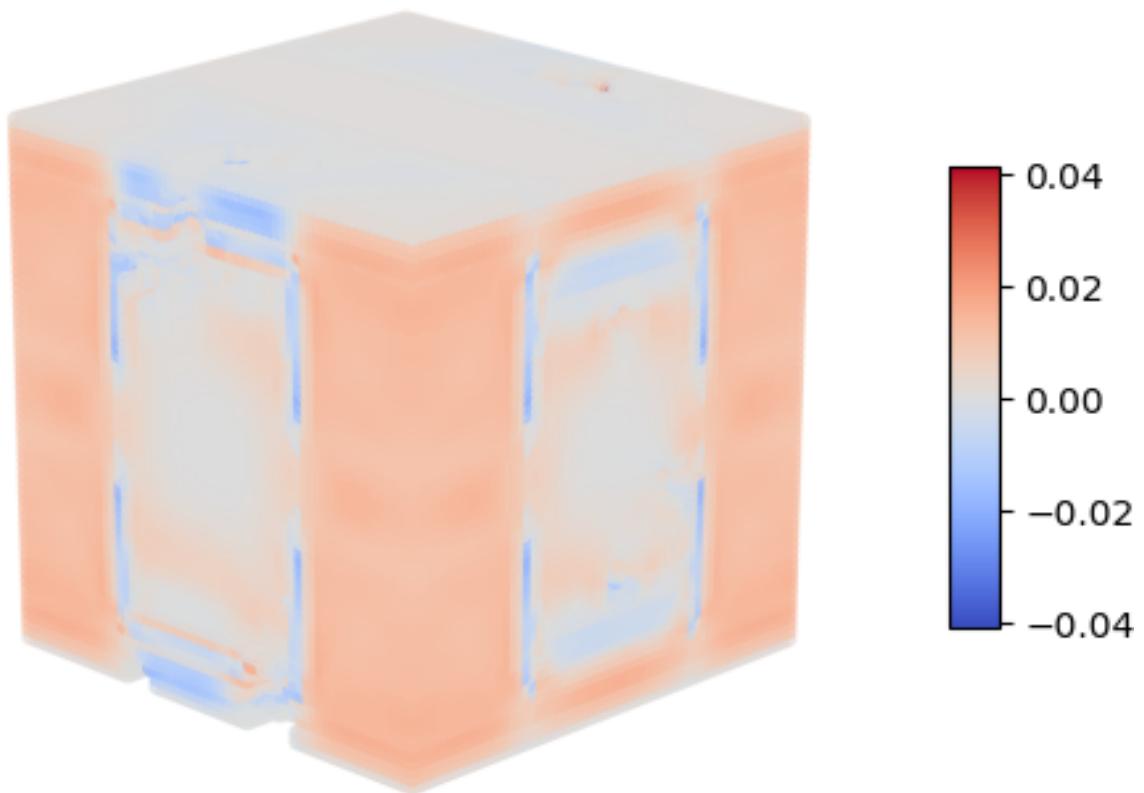
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: e-z

min-e-z: -0.0407905

max-e-z: 0.0413048



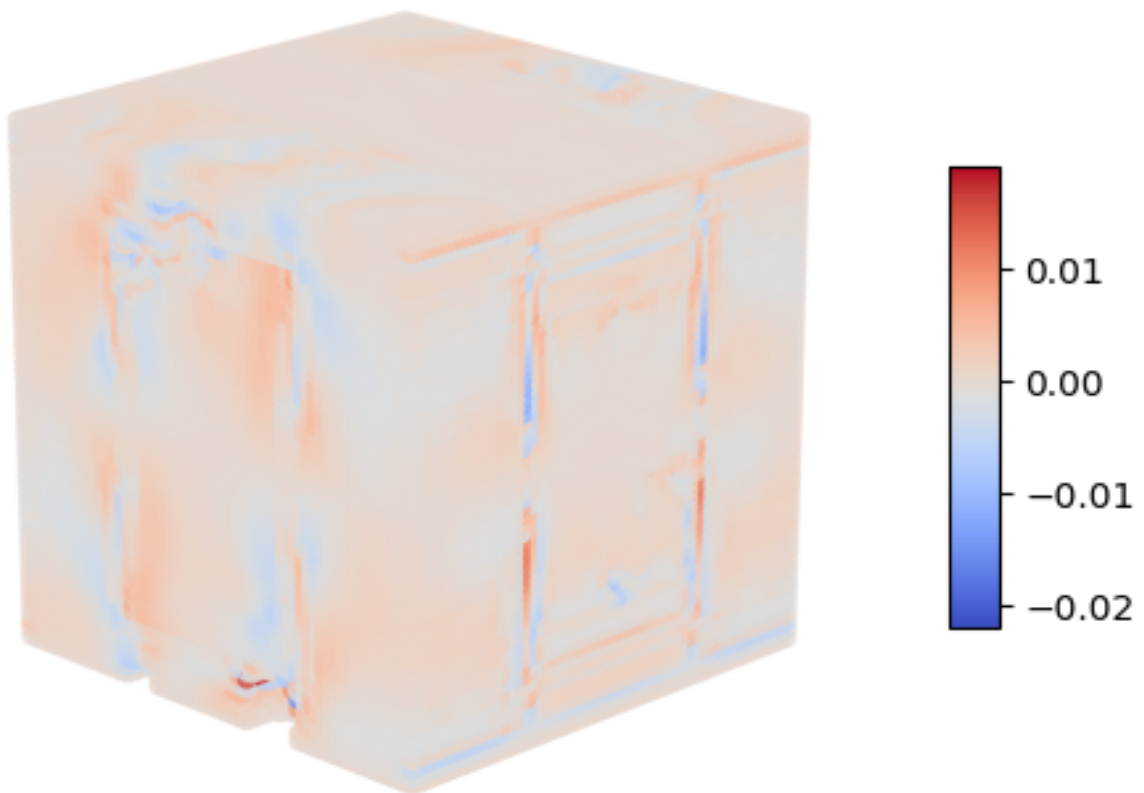
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: e-xy

min-e-xy: -0.0220304

max-e-xy: 0.0192779



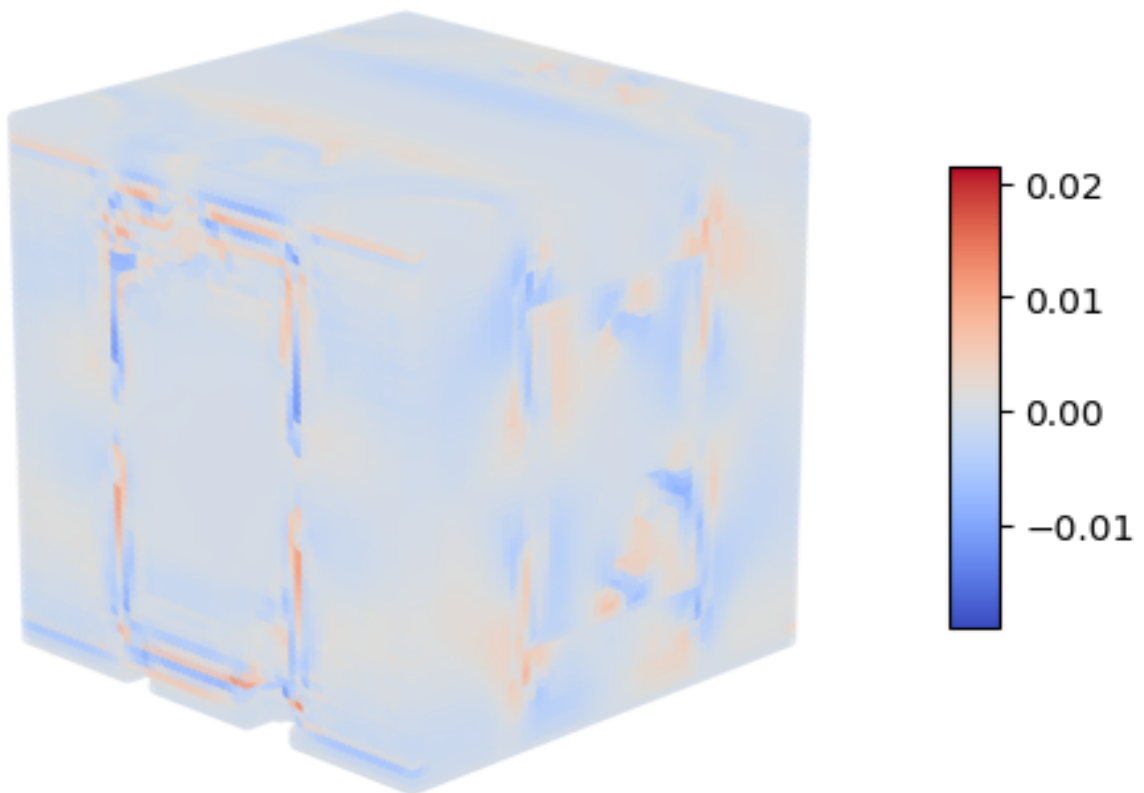
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: e-yz

min-e-yz: -0.018823

max-e-yz: 0.0214848



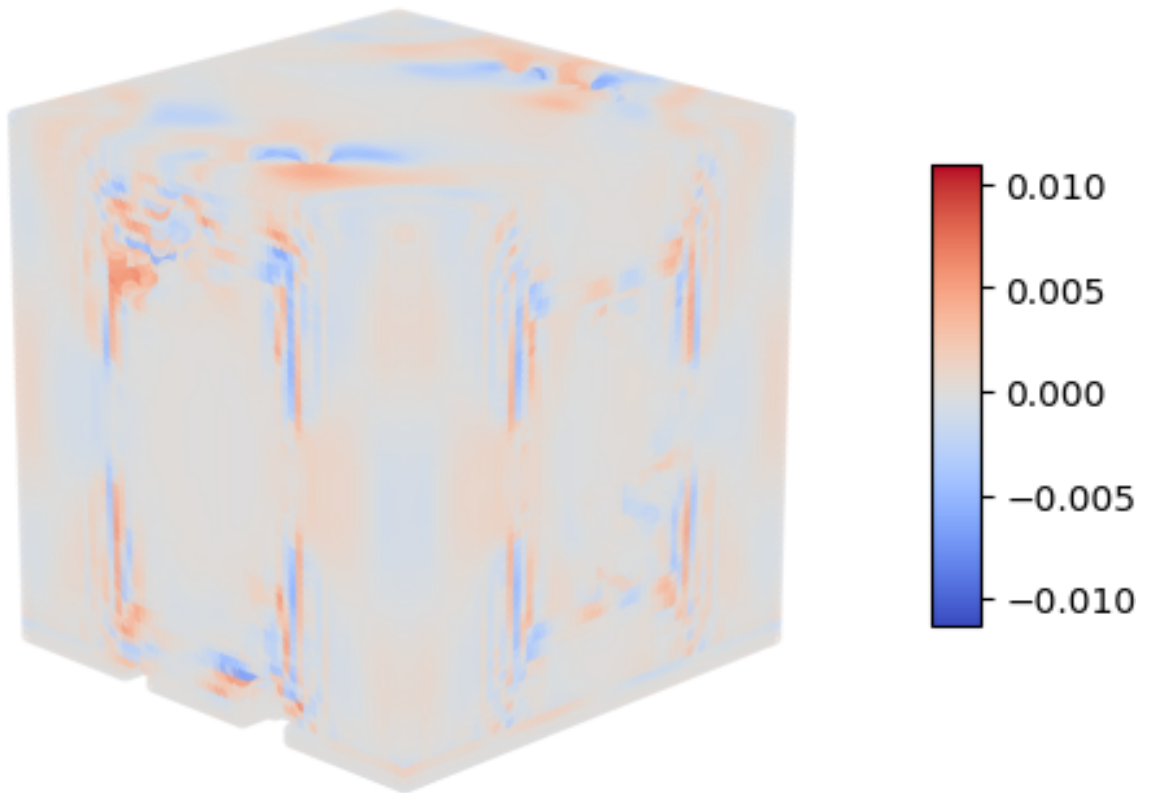
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: e-zx

min-e-zx: -0.0112455

max-e-zx: 0.0109618



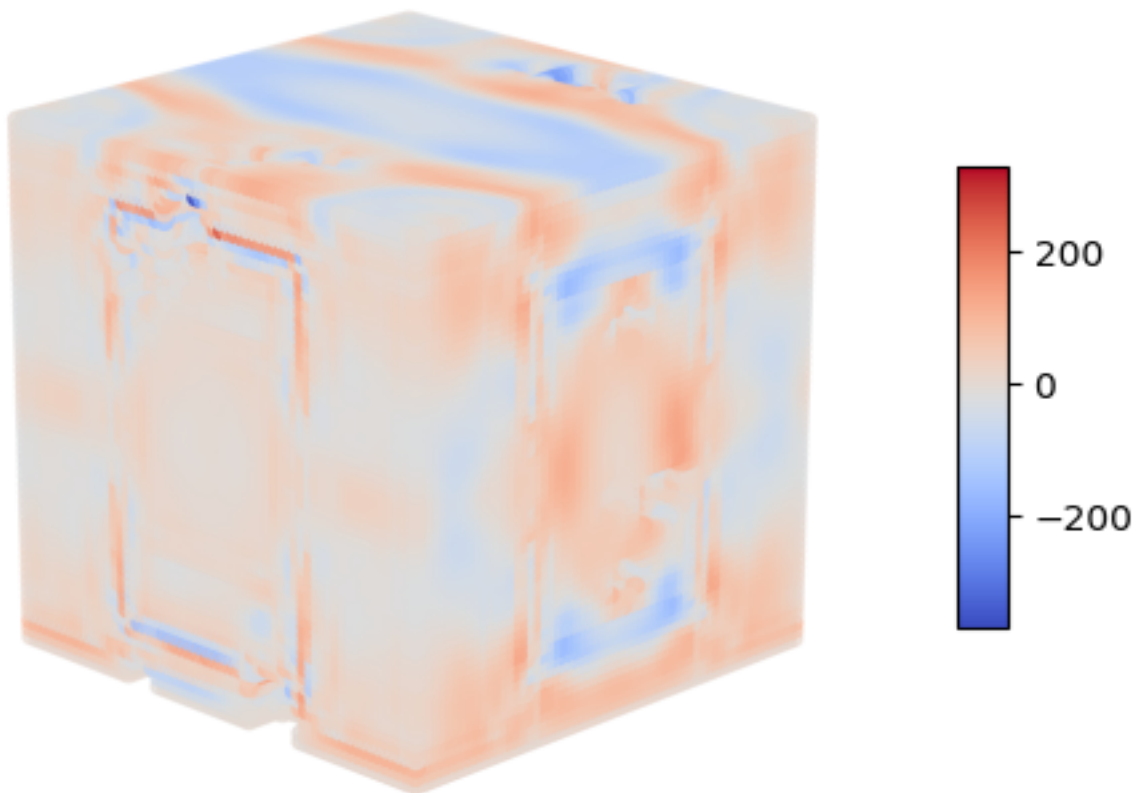
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: s-x

min-s-x: -368.489

max-s-x: 327.009





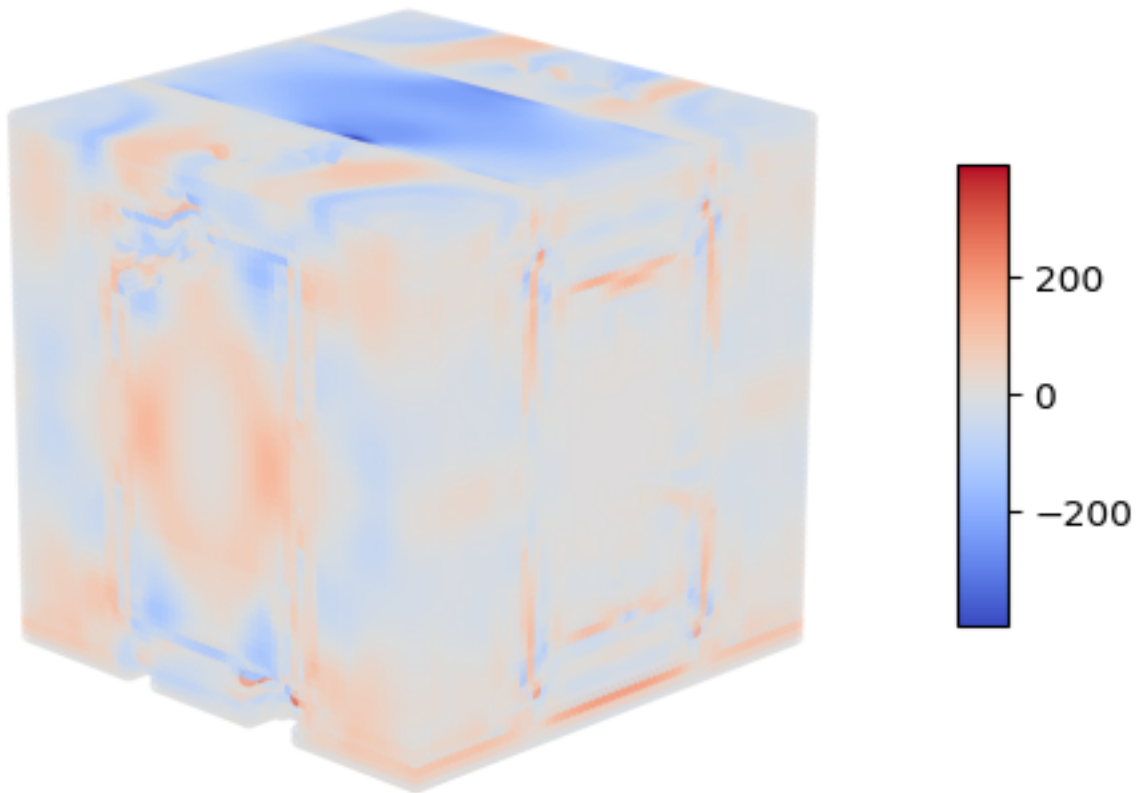
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: s-y

min-s-y: -396.137

max-s-y: 394.487



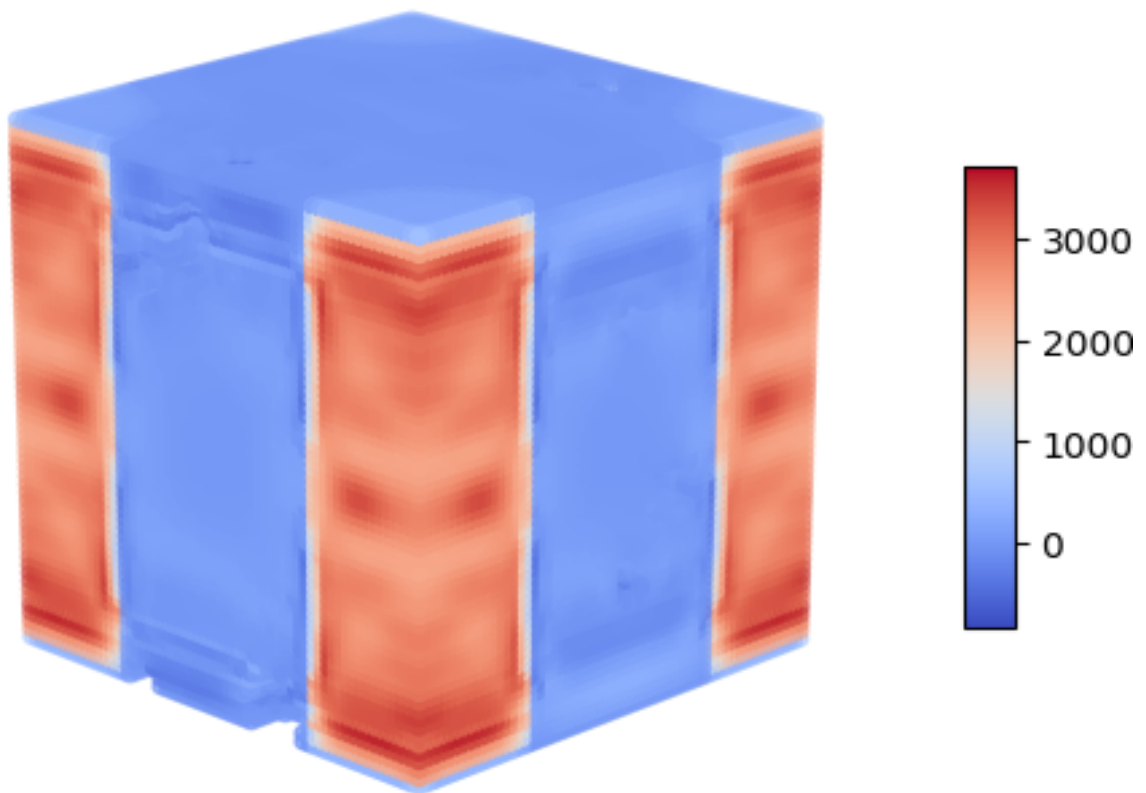
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: s-z

min-s-z: -823.667

max-s-z: 3722.11



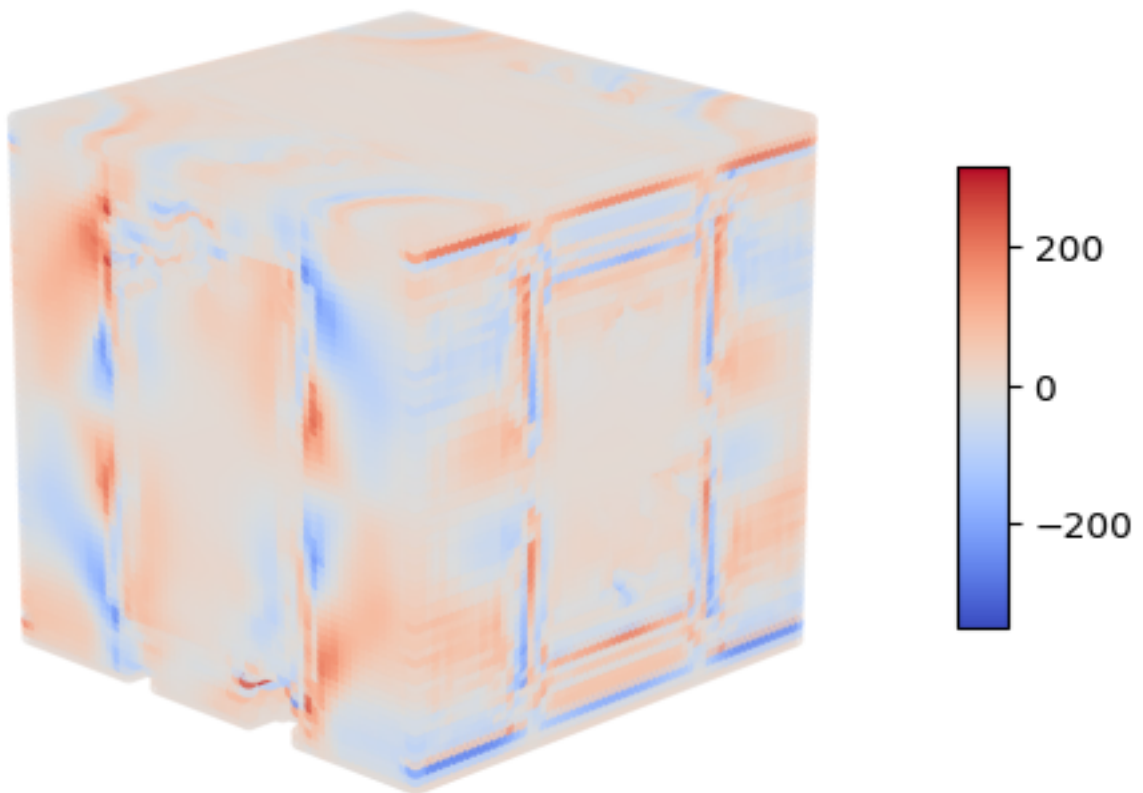
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: s-xy

min-s-xy: -348.815

max-s-xy: 315.329



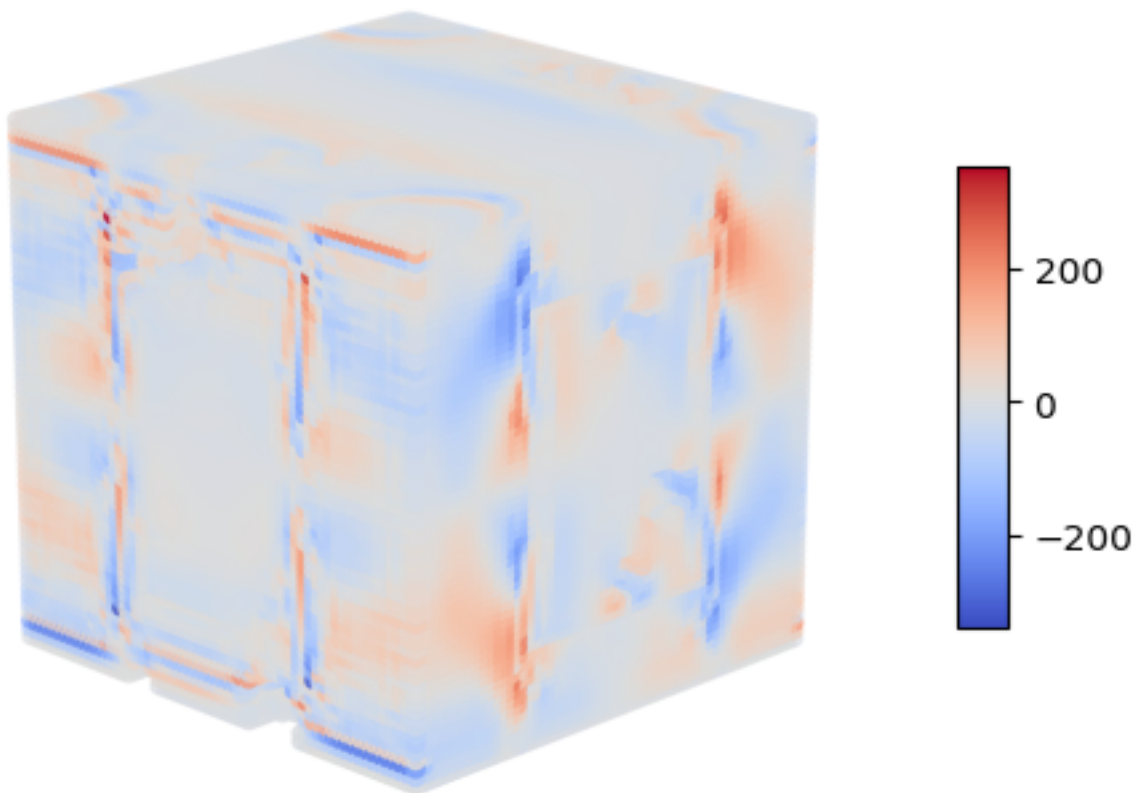
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: s-yz

min-s-yz: -337.558

max-s-yz: 354.502



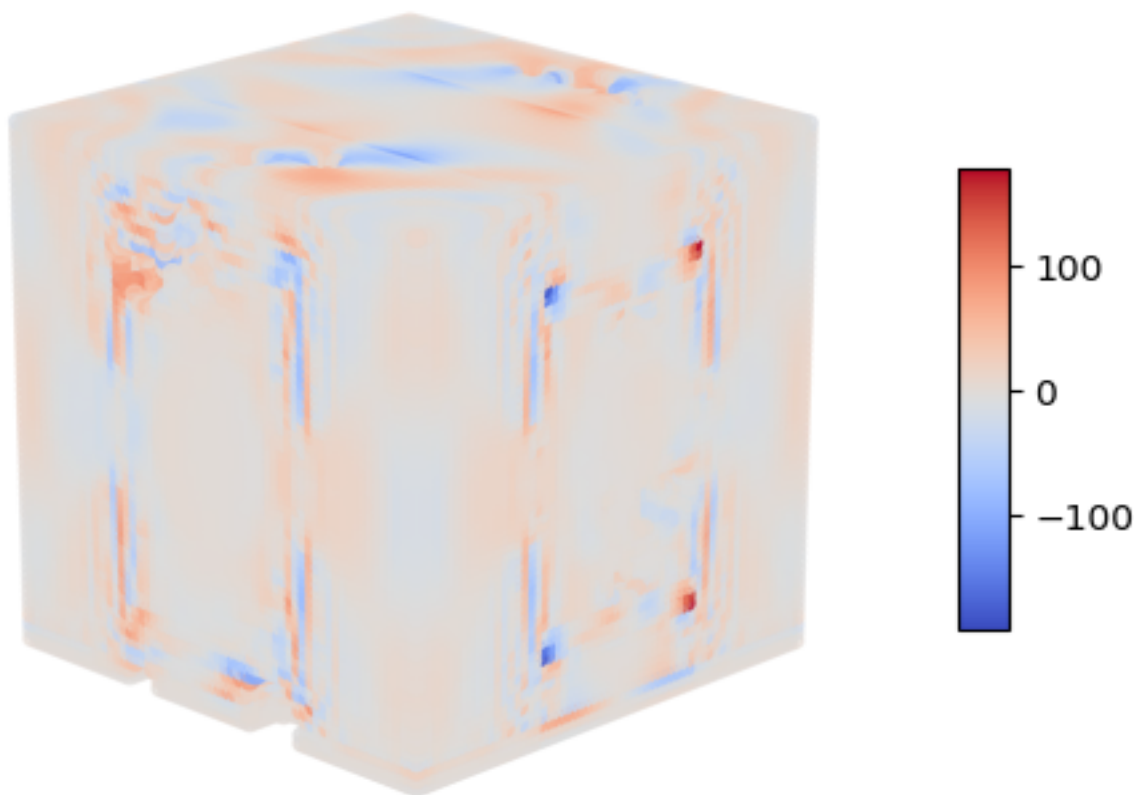
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: s-zx

min-s-zx: -190.857

max-s-zx: 178.546



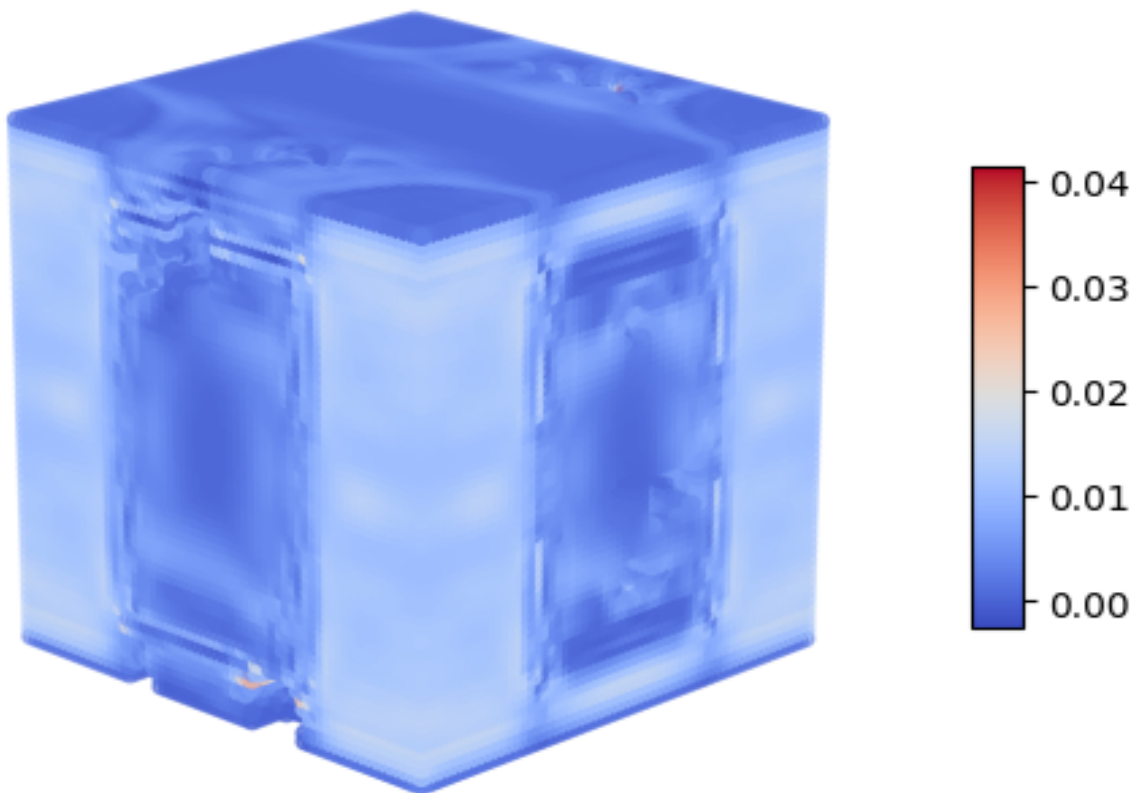
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: e-p1

min-e-p1: -0.00239707

max-e-p1: 0.0413836



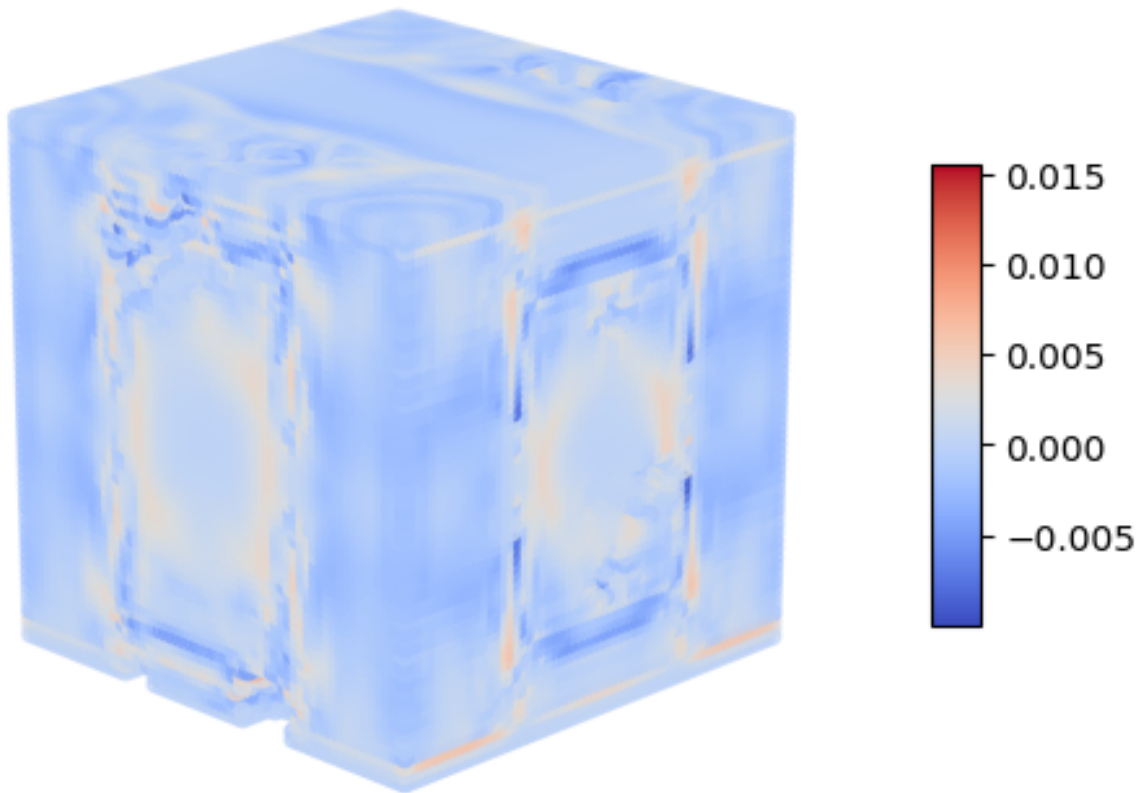
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: e-p2

min-e-p2: -0.00994413

max-e-p2: 0.015531



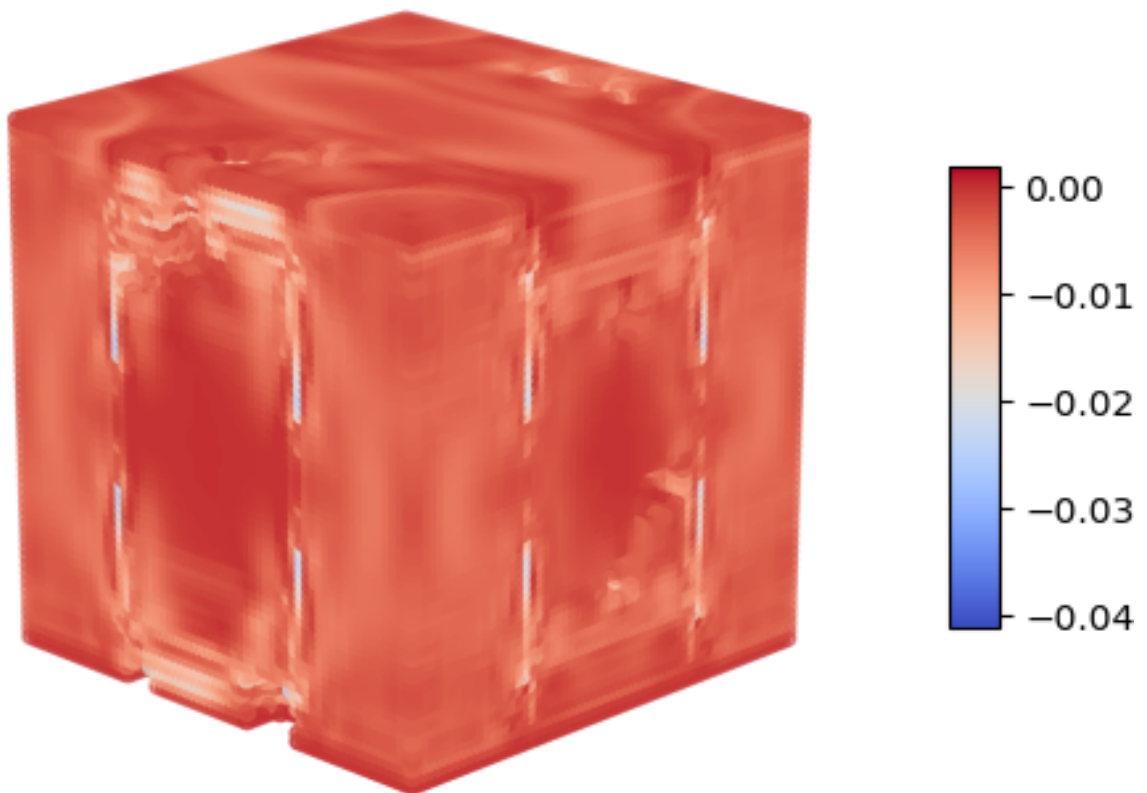
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: e-p3

min-e-p3: -0.0411012

max-e-p3: 0.00197412





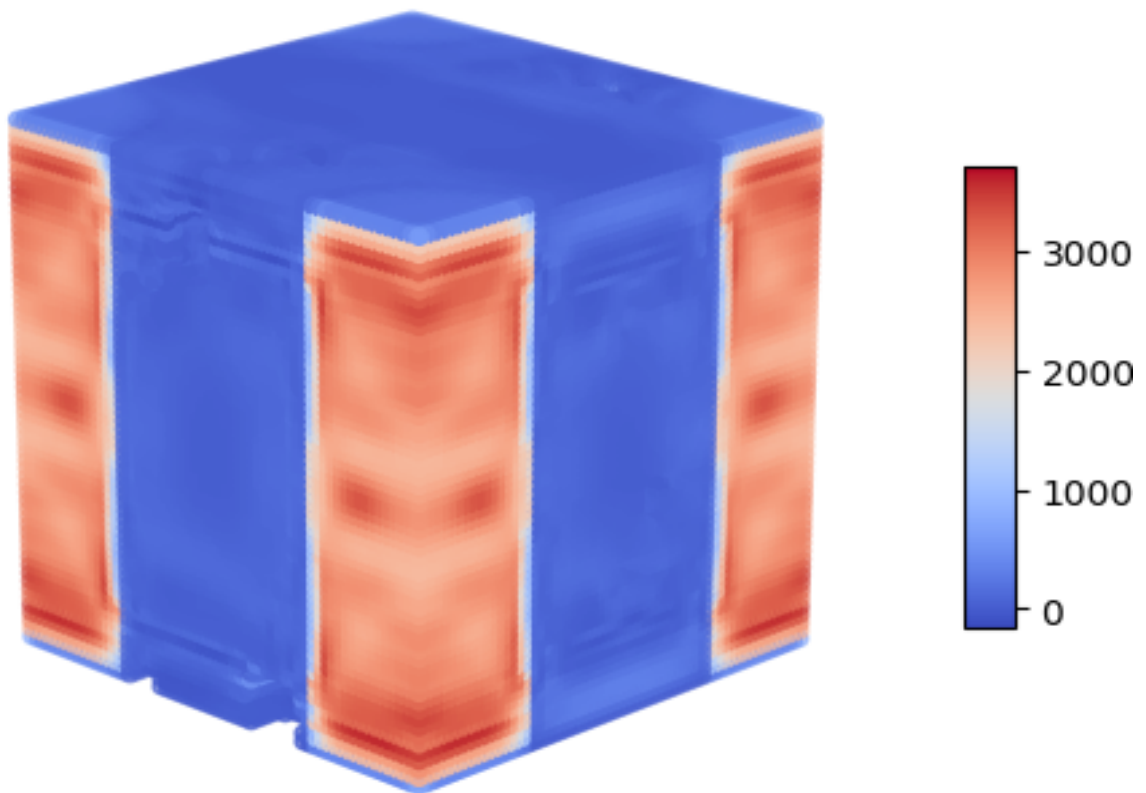
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: s-p1

min-s-p1: -150.915

max-s-p1: 3722.85



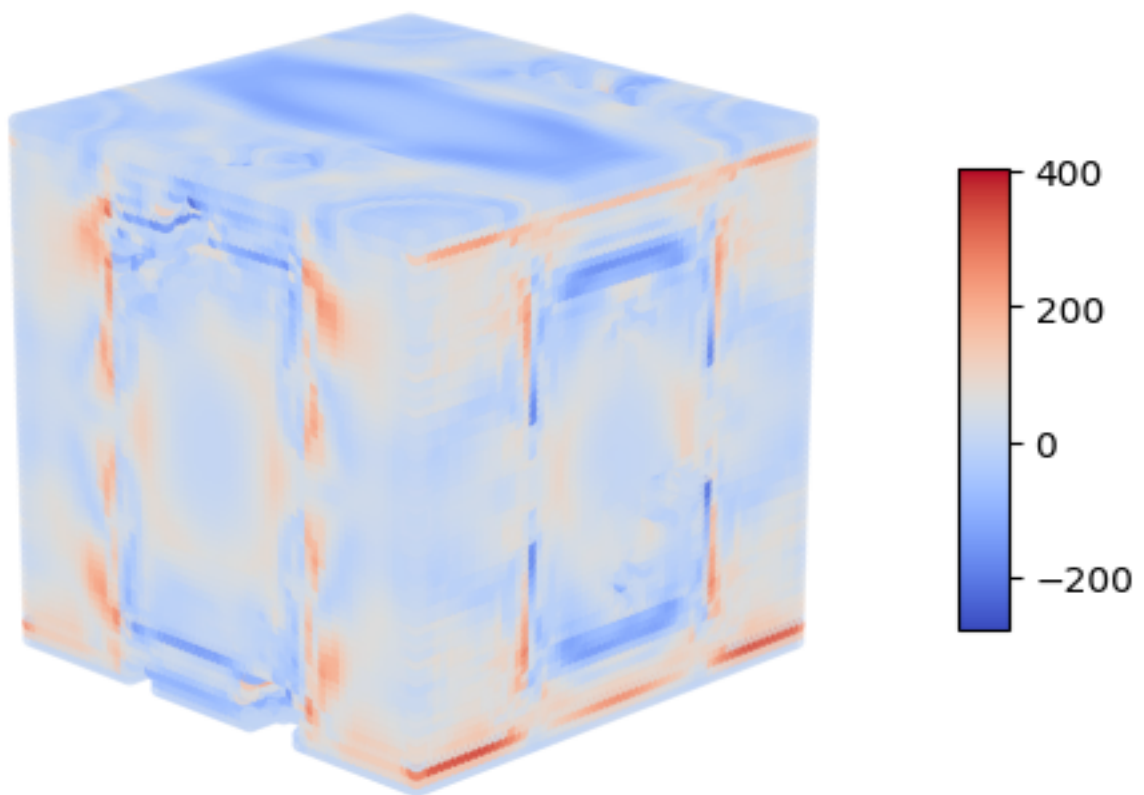
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: s-p2

min-s-p2: -274.807

max-s-p2: 404.609



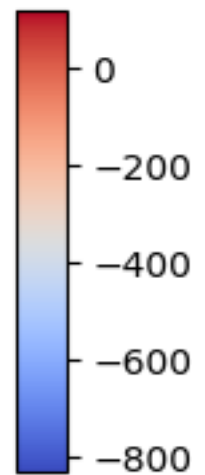
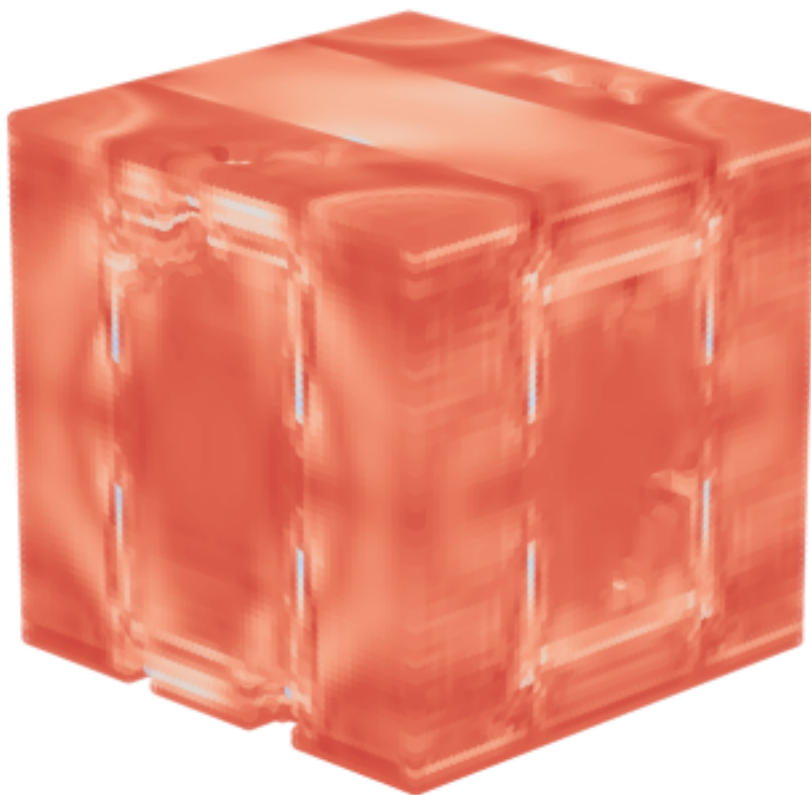
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: s-p3

min-s-p3: -828.587

max-s-p3: 117.842



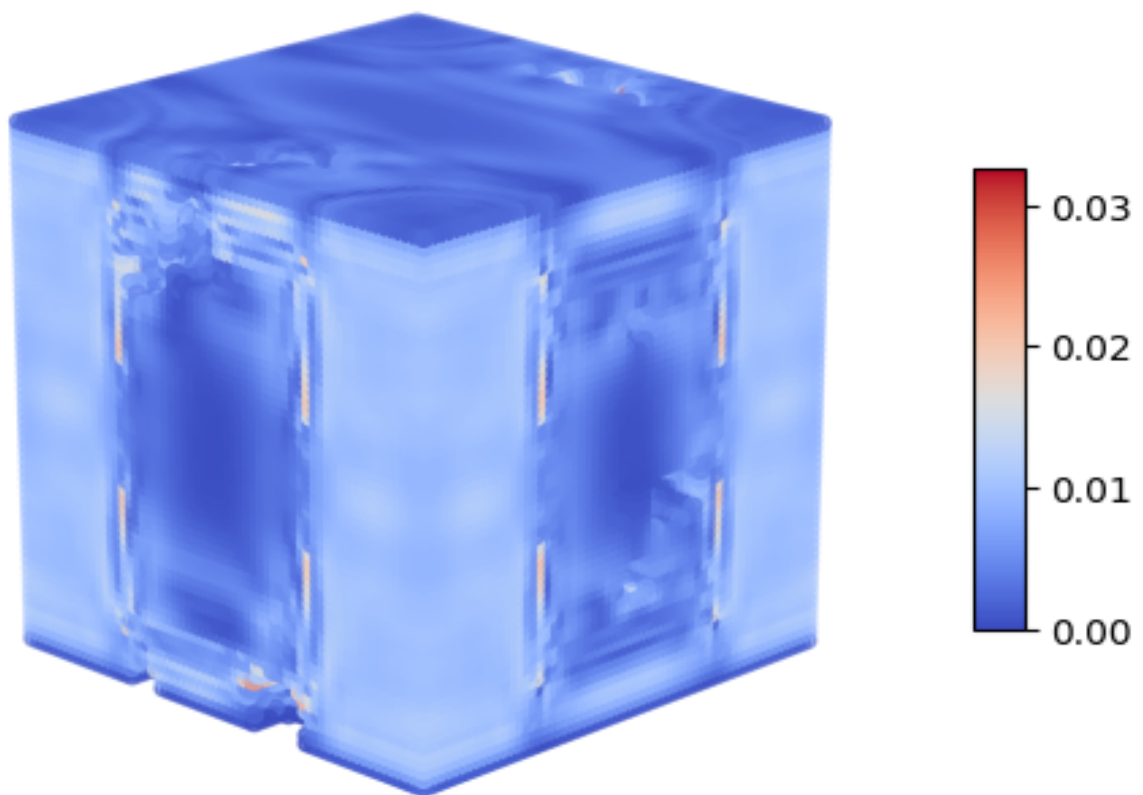
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: e-eq

min-e-eq: 0.0

max-e-eq: 0.0326478



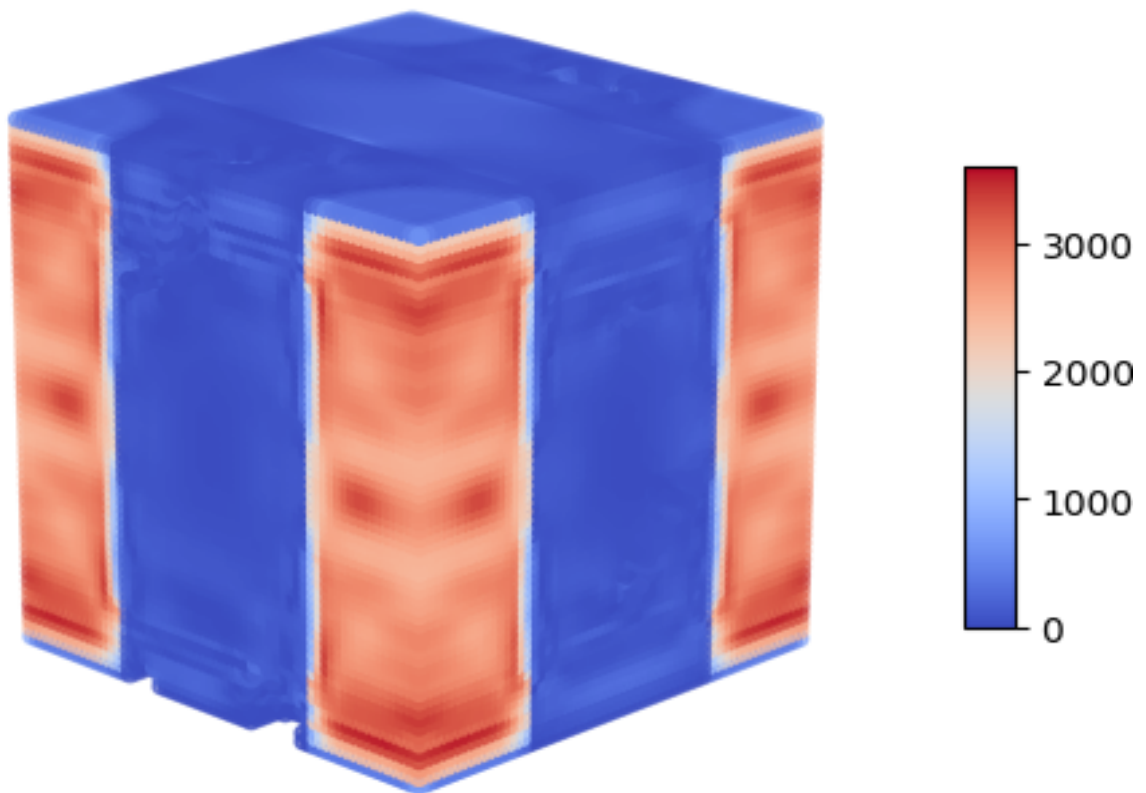
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: s-eq

min-s-eq: 0.0

max-s-eq: 3615.22



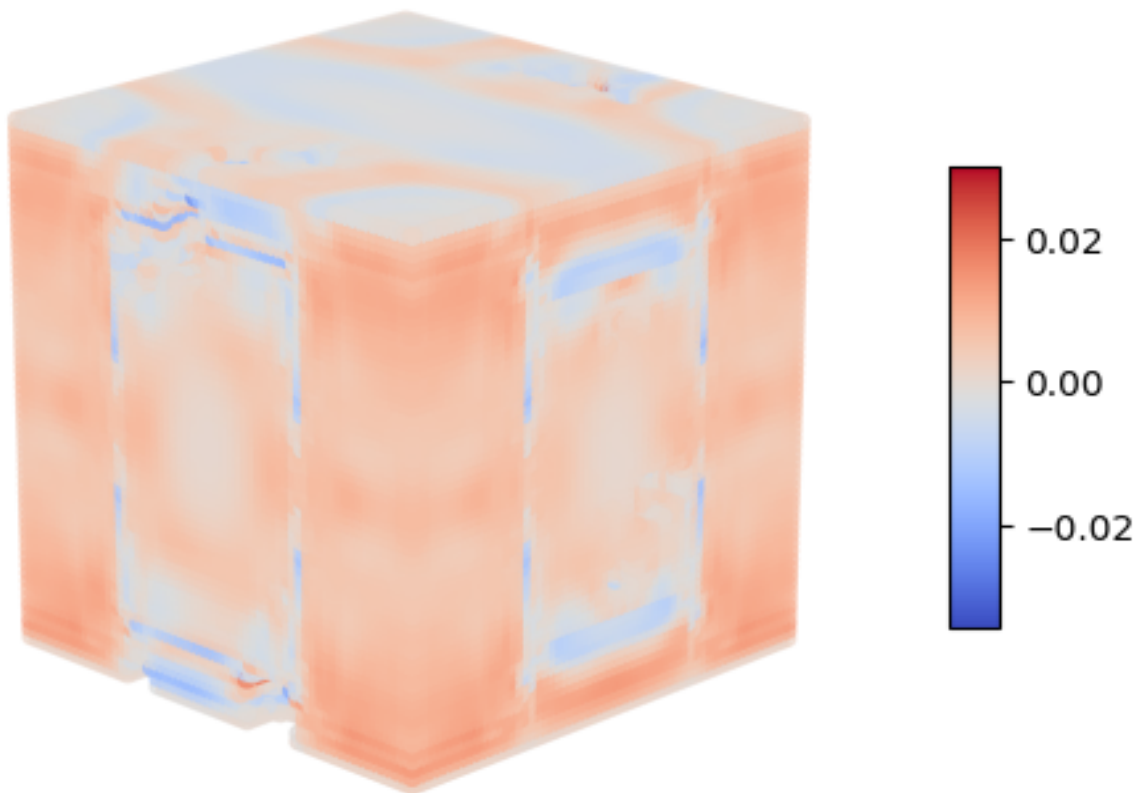
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: e-vol

min-e-vol: -0.0339724

max-e-vol: 0.0299502



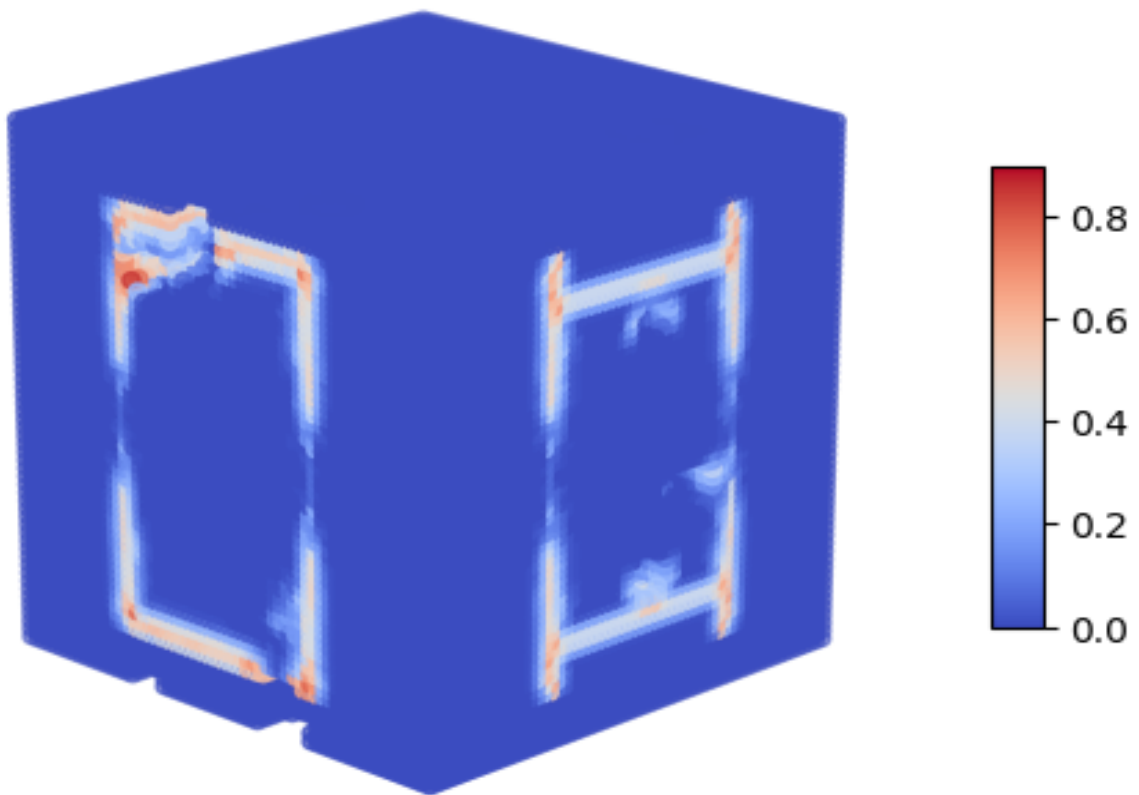
**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: damage-ini

min-damage-ini: 0.0

max-damage-ini: 0.897059



**Run Name: run0**

**Solution Output: out\_0\_1700**

Field: damage

min-damage: 0.0

max-damage: 0.897059

