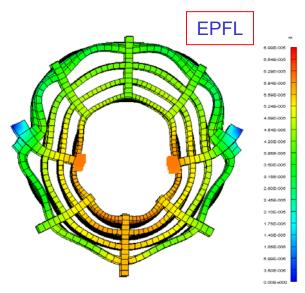
Comparison of SCT Model [EPFL] with SCT Model [LBNL] for Gravity Sag under Pixel Load.

Simple Supports – No Constraints Across Diameter – B6 Interlink Reinforcement



Displacements with Pixel Detector, $max = 70 \ \mu m$

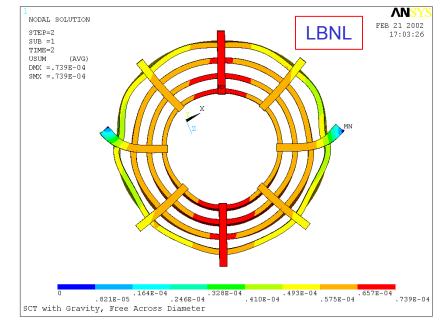
Assumptions:

Pixel Mass = 75 kg (over 4 points)

SCT fixed across Diameter

All SCT properties from EPFL model

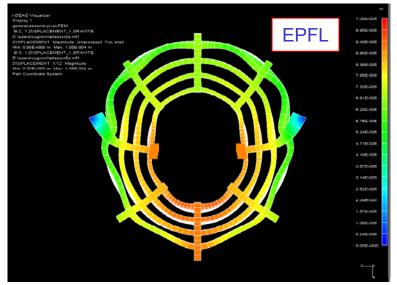
B6 Interlink Reinforcement



Displacements with Pixel Detector, $max = 74 \ \mu m$

Comparison of SCT Model [EPFL] with SCT Model [LBNL] for Gravity Sag under Pixel Load.

Simple Supports – No Constraints Across Diameter – No B6 Interlink Reinforcement



Displacements with Pixel Detector, $max = 105 \ \mu m$

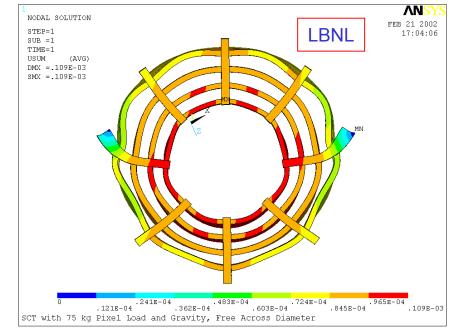
Assumptions:

Pixel Mass = 75 kg (over 4 points)

SCT not fixed across Diameter

All SCT properties from EPFL model

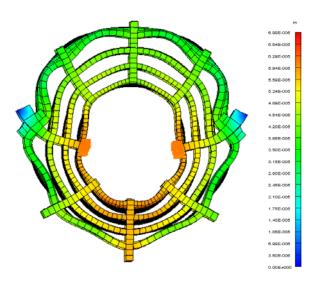
No B6 Interlink Reinforcement



Displacements with Pixel Detector, max = $109 \ \mu m$

ATLAS

Comparison of SCT Model [EPFL] with SCT Model [LBNL] for Gravity Sag under Pixel Load.



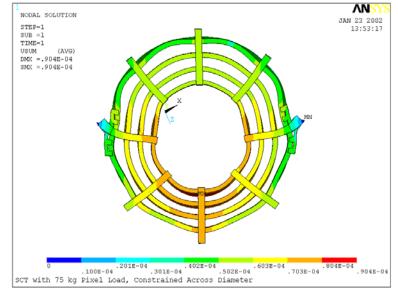
Displacements with Pixel Detector, $max = 70 \ \mu m$

EPFL Assumptions:

Pixel Mass = 75 kg (over 4 points)

SCT not fixed across Diameter

B6 Interlink Reinforcement, simple shape



Displacements with Pixel Detector, max = 90 μ m

LBNL Assumptions:

Pixel Mass = 75 kg (over 4 points)

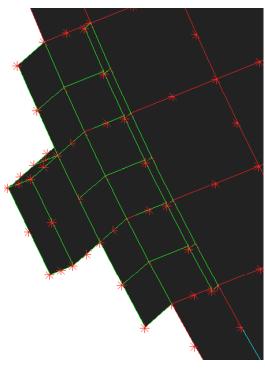
SCT fixed across Diameter

All SCT properties from EPFL model

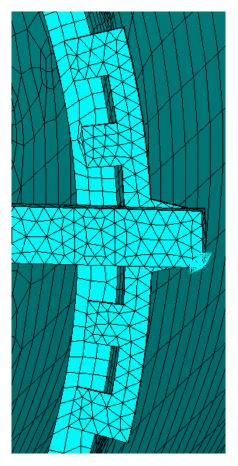
B6 Interlink Reinforcement, complex shape

Comparison of SCT Model [EPFL] with SCT Model [LBNL] for

Mesh density at B6 Reinforcement.



EPFL Model



LBNL Model

Conclusions

- Overall Model is very accurate
 - EPFL and LBNL Models agree to within 6% for model with NO B6 Reinforcement
- Models of B6 reinforcement not in good agreement
 - Reinforcement shapes are very different
 - Mesh density is very different
 - No results exist for B6 Reinforcement shape modeled at LBNL
- Initial results (with no B6 Reinforcement) suggest LBNL model is good, and that we should proceed with PST/SCT combined model