Crack Between Neo-Hookean Material and Rigid Body - Verification & Validation

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Problem Specification

- 1. Pre-Analysis & Start-Up
- 2. Geometry
- 3. Mesh
- 4. Physics Setup
- 5. Numerical Solution
- 6. Numerical Results
- 7. Verification & Validation

Exercises Comments

Verification & Validation

Mesh Convergence

Biased edge sizing can be applied to the model to get a dense mesh at the crack tip (center of the semicircle). The mesh convergence study is shown below. A bias factor of 50 is used. The stresses are measured in Pascals.

	number of division=100, face sizing=2m	number of division=200, face sizing=1m	number of division=400, face sizing=0. 5m
Sigma_rr	8.5973e5	1.4375e6	1.4622e6
Simga_rt	2.6449e5	3.9456e5	4.1444e5
Simga_tt	6.1382e5	1.005e6	9.9227e5

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