Hertz Contact Mechanics - Exercises

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Problem Specification

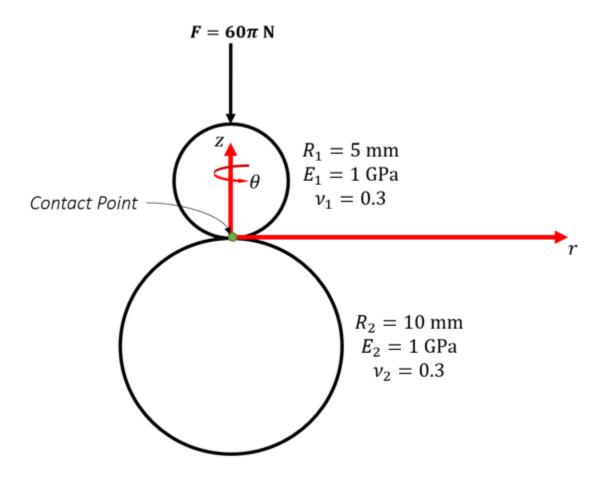
- 1. Pre-Analysis & Start-Up
- 2. Geometry
- 3. Mesh
- 4. Physics Setup
- 5. Numerical Solution
- 6. Numerical Results
- 7. Verification & Validation

Exercises

Comments

Exercises

As an exercise, consider the following problem of two spheres in contact. While our sphere-to-plate example used R₂ = +, the following example deals with two finite radii.



- 1. Compute the contact radius and compare with analytical results.
- 2. Compute the maximum pressure that is induced along the z-axis.
- 3. Check the validity of the numerical results by confirming the force reaction balance, and observe the effect of refining mesh.

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