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Discretized Modeling for Centrifugal Spinning of Viscoelastic Liquids

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Highlights

- Discretized model can predict the behavior of viscoelastic fluids in centrifugal spinning
- Rheological behavior of the viscoelastic fluid is explained by considering FENE-P model
- Initial thinning of the fiber is obtained by incorporating shear stress in the nozzle
- Model predictions are similar to asymptotic analysis and experimental results
- The model can be further used for non-isothermal systems like polymer melts

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