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Amplification of localized body forces in channel flows of viscoelastic fluids

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## Highlights

- Nonmodal amplification of localized body forces is examined
- Poiseuille flow of FENE-CR fluids is considered
- Largest amplification occurs for disturbances near channel wall
- Vortical structures are more prominent in viscoelastic fluids
- Results suggest a mechanism for initial stages of transition to elastic turbulence

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