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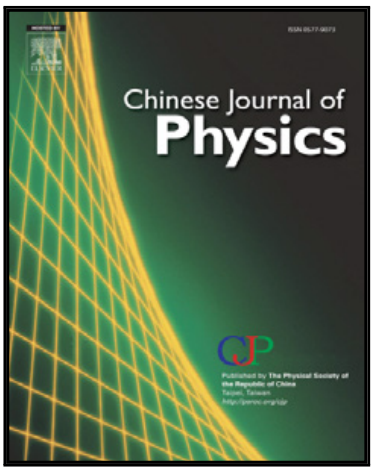

Mathematical Study of Peristaltic Propulsion of Solid-Liquid Multiphase Flow with a Biorheological fluid as the Base Fluid in a Duct

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Highlights

- Three-dimensional peristaltic flow through a rectangular duct has been studied.
- A biorheological Casson fluid model is considered.
- An external magnetic field is also taken into account using the Lorentz force law.
- The eigenfunction expansion method is used to obtain the exact solutions.
- An excellent graphical comparison is presented to validate the current results and the method.

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