Compliant Wall Analysis of an Electrically Conducting Jeffrey Fluid with Peristalsis

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This investigation looks at the peristaltic flow of a magnetohydrodynamic (MHD) Jeffrey fluid in a channel with compliant walls. The flow induced is due to sinusoidal waves on the channel walls. A series solution of the resulting boundary value problem is derived when the wave amplitude is small. Effects of various interesting flow parameters are discussed with the help of graphs.

Key words: Peristaltic Flow; Jeffrey Fluid; MHD; Compliant Walls.