**A MATHEMATICAL MODEL OF PULSATILE BLOOD FLOW THROUGH A BIFURCATED ARTERY**

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This article deals with pulsatile flow of blood in stenosed bifurcated artery by taking blood as micropolar fluid. The arteries forming bifurcation is assumed to be symmetric about its axes and straight cylinders of restricted length. The governing equations are made dimensionless and a suitable coordinate transformation is used to convert irregular boundary to a regular boundary. The resulting system of equations is solved numerically using the finite difference method. The influence of different parameter on shear stress, flow rate and resistance to the flow near the flow divider is shown graphically.

***Keywords*:** Micropolar fluid, Bifurcated artery, Pulsatile flow, Womersley number.