

**“ANALYSIS ON MATHEMATICAL MODEL FOR TWO PHASE (NON- NEWTONIAN &
NEWTONIAN) BLOOD FLOW IN CAPILLARY WITH SPECIAL REFERENCE TO
ASTHMA FOR A SPECIAL CASE, ALLAHABAD (U.P), INDIA”**

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ABSTRACT

The main aim of present study is to examine a Non-Newtonian mathematical model of two phased blood flow in human pulmonary capillary, keeping in view the nature of pulmonary blood circulation. Herschel Bulkley Non – Newtonian model in Bio – fluid mechanical setup is applied with respect to the help of clinical data in case of Asthma for hemoglobin versus blood pressure. In present study overall presentation is in tensorial form and the solution technique adopted is analytical as well as numerical.

KEYWORDS: *Pulmonary Blood Flow, Herschel Bulkley, Non – Newtonian Model, Plasma Layer, Hematocrit, Power-Law Model, Blood Pressure Drop, Behaviour of Blood*

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