

## On the dynamics of blood through the circular tube along with magnetic properties

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*Abstract:* In this talk, we will investigate a blood flow model with suspended magnetic particles. The fluid is influenced by an external magnetic field and an oscillating pressure gradient. Exact solutions for the velocity of fluid and velocity of magnetic particles will be obtained by means of integral transforms. Obtained results will be expressed in terms of post transient and transient parts. Moreover, to study the influence of the material parameters, numerical simulations and graphical illustrations will be used and useful consequences will be summarized.

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