

FINITE DIFFERENCE TECHNIQUE FOR THREE DIMENSIONAL MHD FLOW THROUGH A POROUS MEDIUM BOUNDED BY AN INFINITE VERTICAL POROUS PLATE

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Abstract

The object of this paper is to study the MHD three dimensional free convective flow of a viscous incompressible fluid through a porous medium. The porous medium is bounded by an infinite vertical porous plate. The governing equations have been solved by using Finite difference technique. The expressions for temperature profile, concentration profile and skin friction at the porous plate have been numerically worked out for various values of parameters involved in the solution.

Key Words : Temperature profile, Skin friction, Finite difference technique, Porous medium, Hartmann number, Magneto hydrodynamics.