

MHD MIXED CONVECTION BOUNDARY LAYER FLOW PAST A VERTICAL FLAT PLATE EMBEDDED IN A POROUS MEDIUM WITH RADIATION EFFECT

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Keywords: Dual solutions, magnetohydrodynamic, mixed convection, porous medium, radiation effect
Section (Natural and forced convection in porous media):

ABSTRACT

The problem of magnetohydrodynamic (MHD) mixed convection boundary layer flow past a vertical flat plate embedded in a porous medium is studied, with the effect of radiation is taken into account. The governing system of partial differential equations is first transformed into ordinary differential equations using similarity transformation and then is solved numerically by the shooting method. The characteristics of the flow for various governing parameters are presented and discussed in detail. It is observed that dual solutions only exist for the opposing flow and the skin friction coefficient reduces with the radiation parameter.