

عنوان مقاله:

Magnetohydrodynamic Boundary Layer Slip Flow and Heat Transfer of Power Law Fluid over a Flat Plate

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خلاصه مقاله:

In this paper, we consider the magnetohydrodynamic (MHD) boundary layer flow and heat transfer of power law fluid over a flat plate with slip boundary conditions. We use a similarity transformation to convert the governing nonlinear partial differential equations into a system of ordinary differential equations and solve the resulting system numerically using MATLAB's boundary value solver, `bvp4c`, and the shooting method. We present velocity and temperature profiles within the boundary layer and demonstrate the effect of changing the magnetic parameter, Prandtl number, and slip parameters.

کلمات کلیدی:

Magnetohydrodynamic flow, Nonlinear boundary value problem, Slip flow, NonNewtonian fluid

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