

HYDROMAGNETIC AND THERMAL BOUNDARY LAYER FLOW DUE TO RADIAL STRETCHING SHEET WITH DUFOUR AND SORET EFFECTS

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Abstract:

In this paper, the problem of Hydromagnetic and Thermal Boundary Layer Flow Due to Radial Stretching Sheet with Dufour and Soret Effects was analyzed using the Adomian Decomposition. The governing partial differential equations (PDEs) were reduced with the help of similarity variables to non linear coupled ordinary differential equations (ODEs). The influences of various physical parameters were presented numerically and graphically. Numerical comparisons were carried out with the existing literature and a good agreement was established. The magnetic parameter was found to be a reduction agent of the velocity profile.

Keywords: Radial stretching, Stagnation point, Hydromagnetic.

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