

# Nonlinear Stretching Flow with Thermal Radiation

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This work concerns with the radiation effects on rotating boundary layer flow of an electrically conducting incompressible fluid over a nonlinear stretching surface. The viscous fluid fills the porous space. The flow is permeated by a constant magnetic field applied in the transverse direction. Two types of temperatures are prescribed to the surface. The resulting problems of velocity and temperature are obtained using the homotopy analysis method (HAM). Convergence of the developed series solutions is carefully checked. Graphical results of the velocity and temperature fields for various values of the parameters of the problems are presented and discussed.

*Key words:* Nonlinear Stretching; Radiation Effect; Porous Space; Series Solutions.