

## Article Abstract

<b>Title:</b>	Hermite-Padé projection to thermal radiative and variable conductivity MHD flows through channel with a sliding wall
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<b>Abstract:</b>	The combined effect of variable thermal conductivity and radiative heat transfer on steady flow of a conducting optically thin viscous fluid through a channel with sliding wall and non-uniform wall temperatures under the influence of an externally applied homogeneous magnetic field are analyzed in the present study. The similarity transformation reduces the time dependent governing equations for momentum and thermal energy into a set of coupled ordinary differential equations which are solved using perturbation method together with Hermite-Padé approximation. The velocity and temperature profiles are presented graphically to interpret the effect of various physical parameters of the problem. The critical relationships among the parameters are also performed qualitatively.
<b>Keywords:</b>	Thermal radiation, variable thermal conductivity, sliding wall, non-uniform wall temperature, Hermite- Padé approximation.