

**UNSTEADY FREE CONVECTION FLOW OF NON- NEWTONIAN FLUID
ALONG A CONTINUOUSLY MOVING STRETCHING SHEET WITH HEAT
GENERATION AND RADIATION**

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ABSTRACT

An unsteady MHD free convective flow of non-Newtonian fluids over a continuously stretching sheet has been analyzed to investigate the Radiation effects with Magnetic field and Heat generation. The governing non-linear partial differential equations of the problem have been transformed into a system of non-dimensional ordinary differential equations using dimensionless transformations. The resulting non- dimensional equations are then solved numerically, using explicit backward difference scheme. The results from numerical computations have been presented in the form of velocity and temperature profiles. The dimensionless velocity and temperature profiles are displayed graphically showing the effects for the different values of the involved parameters: Radiation parameter, Magnetic field parameter and Heat source parameter. The investigated results showed that the flow field is influenced by considering the parameters and the corresponding skin friction coefficient and nusselt number have been presented through graphs.

KEYWORDS: *MHD, Stretching Sheet, Radiation and Heat Generation*

Received: Aug 31, 2015; **Accepted:** Dec 07, 2015; **Published:** Dec 21, 2015; **Paper Id.:** JPRDEC20151